SITE INVESTIGATION REPORT – FOCUSED & REMEDIATION OBJECTIVES REPORT Volume I of II

900 West 18th Street Chicago, Illinois

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Prepared For:

The Retirement Program of Farley Inc. c/o Liam Ventures Inc. 233 South Wacker Drive, Ste. 2150 Chicago, Illinois 60606 Attn.: David Henriksen, Esq.

Prepared By:

Pioneer Environmental, Inc. 1000 North Halsted Street, Suite 202 Chicago, Illinois 60622 (312) 587-1021

Date Submitted:

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Pioneer Project # 00868C

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The following personnel have prepared and/or reviewed this report.

Wague Sury

Wayne Smith, P.G. Environmental Services Director

Charity Simpson, P.E. Project Manager

Pioneer Project Number: 00868C

Date: August 27, 2001

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1.0 INTRODUCTION

1.1 Site Investigation Objectives

Pioneer Environmental, Inc. (Pioneer) was contracted by The Retirement Program of Farley Inc. to conduct subsurface investigation activities and provide Illinois Environmental Protection Agency (IEPA) reporting services for the subject site located at 900 West 18th Street, Chicago, Illinois (Figure 1; Appendix A). The purpose of the subsurface investigation was to fully characterize the recognized environmental conditions (RECs) previously identified at the subject site by Pioneer while conducting a Phase I Environmental Site Assessment (ESA). The subsurface investigation was performed in accordance with 35 Illinois Administrative Code (IAC) Section 740.430—Focused Site Investigation. This Site Investigation Report—Focused & Remediation Objectives Report is intended to summarize the subsurface investigations completed at the subject site to date. This work is being conducted to determine the degree of remedial action to comply with applicable regulations and obtain a No Further Remediation (NFR) Letter for the subject site pursuant to 35 IAC 740.430 and 415 ILCS 5/58.10.

1.2 Background Information

The subject site is comprised of two parcels. Parcel #1 is currently occupied by a partial three-story building with a partial basement (subject building; Figure 1). Parcel #2 is an asphalt-paved parking lot located directly east from Parcel #1 and across Peoria Street. The subject property is occupied by Tool and Engineering Company, a manufacturer of prototype automobile parts. Pioneer was previously contracted to perform a Phase I ESA at the site and subsequently issued a report dated December 7, 2000. The following RECs were noted during the Phase I ESA:

- REC-1: The historical presence of "white lead" and paint manufacturing facilities on Parcel #1 as early as 1886;
- REC-2: The long-term occupancy (circa 1888 to 1940s) of Parcel #1 by the National Lead Company, a lead reclamation facility;
- REC-3: The historical casting/foundry operations conducted on Parcel #1 (1940s), the reported explosion and fire that occurred in 1985, and the reported observations indicating that "black sands" may have been buried on-site;
- REC-4: The documented former presence of numerous UST systems that were removed from Parcel #1 during building demolition in 1985 and in 1986 and the documented presence of a former leaking gasoline UST on-site in 1984.
- REC-5: The permit records reviewed indicating that a "tank" (size and contents unknown) and a 5,000-gallon fuel oil UST were installed at Parcel #2 in 1943 and 1949, respectively, and the lack of specific information regarding their status.
- REC-6: The lack of specific information currently available regarding the subject property's CERCLIS-NFRAP listing.

Pioneer was subsequently contracted to conduct a subsurface investigation to address the RECs. The scope of the subsurface investigation included soil and groundwater sampling and analytical testing in each of the areas of concern and a geophysical survey of certain areas to investigate the potential presence of USTs in Parcel #2. To note, further information was reviewed with regard to REC-6. It was discovered that the CERCLIS-NFRAP listing was associated with the manufacturing processes of Southern White Lead Company and National Lead Industries. Thus REC-6 can be grouped with RECs 1 and 2.

1.3 Contaminants of Concern

Based on the above RECs and in accordance with 35 IAC Part 740, the following contaminants of concern (COCs) were specifically identified for the subject site:

- Volatile Organic Compounds (VOCs)
- Semi-Volatile Organic Compounds (SVOCs) including acid extractable compounds (acids),
 base/neutral extractable compounds (base/neutrals) and polynuclear aromatic hydrocarbons
 (PNAs)
- · Priority Pollutant Total Metals
- Total Cyanide

2.0 SITE CHARACTERIZATION

2.1 Site Description

The subject site consists of two separate parcels, encompassing a total area of approximately 203,000 square feet. Parcel #1 encompasses approximately 153,000 square feet and is improved by a partial three-story commercial facility (with a partial basement (subject building). The remaining surface area of this parcel (far western portion) consists of concrete or asphalt-paved areas. Parcel #2 encompasses approximately 50,000 square feet and currently consists of an asphalt-paved parking lot and storage area for casting equipment related to manufacturing automobile parts.

The Property Index Number and Legal Description for the subject site are as follows:

Property Index Numbers: Parcel 1: 17-20-404-028-000

Parcel 2: 17-20-405-010-000

17-20-405-011-000

17-20-405-012-000

17-20-405-013-000

17-20-405-014-000

17-20-405-015-000

17-20-405-018-000

17-20-405-035-000

17-20-405-039-000

17-20-405-041-000

Legal Descriptions:

Parcel 1:

THAT PART OF THE WEST 1/2 OF LOT 14 IN THE ASSESSOR'S SUBDIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, BOUNDED AND DESCRIBED AS FOLLOWS: COMENCING AT THE SOUTHEAST CORNER OF THE WEST 1/2 OF SAID LOT 14, THENCE RUNNING WEST ALONG THE NORTH LINE OF 18TH STREET, 143 FEET TO THE EAST LINE OF THE PREMISES HERETOFORE CONVEYED TO THE CHICAGO, BURLINGTON AND QUINCY RAILROAD; THENCE NORTH A DISTANCE OF 150 FEET ALONG SAID LINE; THENCE EAST ALONG A LINE 150 FEET NORTH OF AND PARALLEL18TH STREET A DISTANCE OF 143 FEET TO THE EAST LINE OF SAID TRACT; THENCE SOUTH 150 FEET TO THE PLACE OF BEGINNING, IN COOK COUNTY, ILLINOIS.

AND

LOTS 1 TO 25 (BOTH INCLUSIVE) IN BARRETT'S SUBDIVISION OF THE EAST 1/2 OF LOT 14 IN ASSESSOR'S DIVISION OF THE NORTH QUARTER OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, TOGETHER WITH THE VACATED ALLEYS LYING SOUTH OF LOTS 1 TO 5, WEST OF LOTS 6 TO 29 AND NORTH OF LOTS 21 TO 25 IN BARRETT'S SUBDIVISION, AFORESAID, ALL IN COOK COUNTY, ILLINOIS.

AND

THE WEST 1/2 OF LOT 14 IN ASSESSOR'S SUBDIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20 (EXCEPT THAT PART LYING SOUTH OF A LINE 150.00 FEET NORTH OF AND PARALLEL WITH THE NORTH LINE OF 18TH STREET, EXCEPT THAT PART HERETOFORE CONVEYED TO BURLINGTON NORTHERN INC.) IN TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

Parcel 2:

THE SOUTH 166 FEET, 3 INCHES OF LOT 15 IN ASSESSOR'S SUBDIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, AND THE SOUTH 1/2 OF LOT 16 IN ASSESSOR'S SUBDIVISION AFORESAID (EXCEPTING FROM SAID LOTS 15 AND 16 THAT PART TAKEN FOR 18TH STREET) ALL IN COOK COUNTY, ILLINOIS.

AND

LOT 45 (EXCEPT THE EAST 3 INCHES THEREOF AND EXCEPT THE SOUTH 33 FEET THEREOF) AND LOT 46 (EXCEPT THE SOUTH 33 FEET THEREOF) IN GEORGE ROTH'S SUBDIVISION OF BLOCK 17 OF ASSESSOR'S DIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

AND

LOTS 2 AND 3 IN LOUIS HOEFKES SUBDIVISION OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF BLOCK 15 AND LOT 28 (EXCEPT THE SOUTH 16.2 FEET THEREOF) IN BARRETT'S SUBDIVISION OF THE EAST 1/2 OF BLOCK 14, ALL IN ASSESSOR'S DIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

AND -

LOTS 26 AND 27 AND THE SOUTH 16.2 FEET OF LOT 28 IN BARRETT'S SUBDIVISION OF THE EAST 1/2 OF LOT 14 IN ASSESSOR'S DIVISION OF THE NORTH QUARTER OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

AND

LOT 1 (EXCEPT THAT PART LYING SOUTH OF THE NORTH 27 FEET 1/2 INCH THEREOF) IN LOUIS HOEFKE'S SUBDIVISION OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTH 1/2 OF BLOCK 15 AND LOT 28 (EXCEPT THE SOUTH 16.2 FEET THEREOF) IN BARRETT'S SUBDIVISION OF THE EAST 1/2 BLOCK 14 ALL IN ASSESSOR'S DIVISION OF THE NORTH QUARTER OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

Underground utilities such as natural gas, telephone, water and sewer enter Parcel #1 from Peoria Street at the east property boundary. Electric service is provided via overhead lines.

The subject site is located in a mixed-use area in Chicago. According to the 1999 Chicago Zoning Ordinance, the subject site and some surrounding sites are located in a Restricted Manufacturing District (zoned "M1-2") and the remaining adjacent sites are located in a General Residence District (zoned "R-4"). The following provides a summary of the adjacent properties noted during the site inspection.

Parcel #1:

North: Parcel #1 is bounded by 16th Street to the north and farther north by an elevated railroad embankment.

East: Parcel #1 is bounded by Peoria Street to the east. Farther east is Parcel #2.

<u>South</u>: Parcel #1 is bounded by 18th Street to the south, beyond which are commercial/industrial and residential structures.

West: Parcel #1 is bounded by railroad tracks and associated easements to the west.

Parcel #2:

<u>North</u>: To the north of Parcel #2 is a single family home and farther north is a commercial building.

East: Parcel #2 is bounded by residential properties to the east. Farther east is Newberry St.

<u>South</u>: Parcel #2 is bounded by 18th Street to the south, beyond which are commercial/industrial and residential structures.

West: Parcel #2 is bounded bounded by Peoria Street to the west. Farther west is Parcel #1.

2.2 Sampling Plan

Given the historical information reviewed and the findings of Pioneer's Phase I ESA, an initial sampling plan was developed and implemented. Based on the analytical results and field indications, a subsequent sampling plan was developed. Any "hot spots" of contamination identified during this subsurface investigation work were further delineated to the extent practicable. The following table provides a summary of the analyses completed on each soil and groundwater sample. Figure 2 depicts the location of each REC in relation to the soil borings and groundwater monitoring wells.

Table 2.1
Summary of Laboratory Analysis

LOCATION	VOCs	Acids	Base/ Neutrals	Carbazole	PNAs	втех	ТРН	Priority Pollutant Total Metals	Total RCRA 8 Metals	Various Total Metals	SPLP Metals	TCLP Lead	pН
B-1 (0-3)	х								Х	X-Zn			х
B-2 (2-4)	х	X	x		х			X		X-CN			X
B-3 (6-9)	х								х	X-Zn			х
B-4 (9-12)	х	х	X		х		A-36000 - 80		Х	X-Zn		San	x
B-5 (6-9)	х	х	х		x			x		X-CN			x
B-6 (3-6)	х	Х	X		Х				х	X-Zn		х	х
B-7 (6-9)	х	х	х		х				х	X-Zn			eto a Chica (chica
B-8 (6-9)	х	8							х	X-Zn	1=33		х
B-9 (6-9)	х	Х	Х		х				· x	X-Zn			Х
B-10 (6-9)	х	Х	х		Χ.				х	X-Zn		х	x
B-11 (6-9)	х	х	Х		х			х		X-CN			x
B-12 (3-6)		1,000					0.00	х		X-CN			X
B-12 (6-9)	х	х	х		х		()						
B-13 (3-6)					х	х		2.50	х		2		x
B-15 (9-12)		1000			х	х	0.504						-
B-16 (6-9)					х	х							
B-17 (0-3)	х	х	х		х				Х	2		0.000	х
B-17 (6-9)					x		J.	1	х		X-Se		X
B-18 (0-3)	х	Х	х		х				х				х
B-18 (8-10)				4 04	х				х		X-Hg		х
B-19 (0-3)	х	х	х		х				x _		х		X
B-19 (3-6)	х	,			х				X		X-Pb, Ag	х	Х
B-20 (0-3)	X	х	х		х		121		х		X-Ba, Cd, Pb,		х
B-20 (6-9)	х				х								
B-21 (0-3)	х	x	х		х		3-0.000		x				_ x
B-21 (6-9)	х				х		X		х	_	1.		_ x
B-22 (0-3)	х	х	х		x	-2-250			х		8		_ x
B-22 (6-9)	х				х								
B-23 (0-3)	х	х	x		x				x				_ x
B-23 (6-9)	х	-3	x		X_				x				х
B-24 (0-3)	х	Х	х		х				х				х
B-24 (6-9)	Х				Х				x				х
B-25 (0-3)	х	Х	х		х			e ²²	х				х
B-25 (6-9)		X		PERSONAL DE	х			200					
B-27 (0-3)	х	Х	Х		Х				х				х
B-27 (6-8)	х	200 8			х				х				х
B-29 (0-3)	х	Х	Х		Х			1 2 200	Х	annati te			Х
B-29 (6-9)	x		SMAR		х		х		х				х
B-29 (14-15)	х	15/15											

Table 2.1 (continued) Summary of Laboratory Analysis

LOCATION	VOCs	Acids	Base/ Neutrals	Carbazole	PNAs	BTEX	ТРН	Priority Pollutant	Total RCRA 8	Various Totai	SPLP Metals	TCLP Lead	pH
	6 6			,			100	Total	Metals	Metals		5 N	o ^{it}
B-30 (2-4)		X		<u> </u>	х		(A) (A) (A)	Metals	_			A 30	
B-31 (4-6)		X			X			 					
B-32 (0-3)	х	X	x		X				х				х
B-32 (9-12)			X		X			 	X		15		x
B-32 (9-12) B-33 (0-3)	X X	X	X		X	×			X			13° ÷	X
B-33 (6-9)		^_	X		_^_x	-) 		C.				
B-33 (0-9) B-34 (0-3)	X X	х	X		X		*		X X				X
B-34 (0-3) B-34 (9-12)	^	_^_	^	3 5		х		-	Α				
	X		v		X	X		 	x				
B-35 (0-3)		X	Х		X	v		-	X				X
B-35 (6-9)			-		Process of the second	x		<u> </u>	-			 	·
B-36 (6-9)	v		1		Х		-	 	_				
B-37 (6-9) B-38 (6-9)	X		<u> </u>			1	·x	1					
	X		- V	_			X	1					
B-39 (3-6)		-	X			61 1 5				-		2	
B-40 (3-6)			X									,	
B-40 (6-9)			X							1553			<u> </u>
B-41 (3-6) B-41 (6-9)			X X			 		1	1				
	-	1					*						
B-42 (3-6)			X	- Later					-				
B-42 (6-9)			X X		w.			-	1				<u> </u>
B-43 (0-3)			X					+					
B-43 (3-6)			X			-		1	5 12-32-	E E			
B-44 (6-9)			X	-									
B-45 (6-9) B-46 (3-6)						(<u> </u>	1		Y DL		х	<u> </u>
B-47 (0-3)					2 3	<u> </u>		20		X-Pb		X	(
B-47 (0-3) B-47 (3-6)								1	. ,	V DL	943	·X	
B-47 (5-0) B-47 (6-9)		-	 	 			ŀ	1.	<u> </u>	Х-Рь		X	
B-48 (3-6)			 					2. 5				X	
B-49 (3-6)	***************************************		-			8	-3	181	-			X	<u> </u>
B-49 (3-0) B-50 (0-3)			 									X	-
			-			190	 			-			
B-50 (3-6)		 	 					-	 			X	
B-50 (6-9)		-	 		12			-	-			X	
B-51 (0-3)	-							+				X	
B-51 (3-6)	}		-		5000			+				X	
B-51 (6-9)		 	-	- v					-			X	_
B-52 (0-3)				X				-	 -	 			
B-53 (0-3)		D 1967 46	 	X		<u> </u>		 				<u> </u>	_
B-54 (0-3)				X		2 0 0			<u></u>		ļ		
B-55 (0-3)				Х				**					

Table 2.1 (continued)

Summary of Laboratory Analysis

LOCATION	VOCs	Acids	Base/ Neutrals	Carbazole	PNAs	втех	ТРН	Priority Pollutant Total Metals	Total RCRA 8 Metals	Various Total Metals	SPLP Metals	TCLP Lead	рĦ
B-56 (3-6)		ı				e .						x	
B-57 (3-6)		250		,				27				х	
B-58 (3-6)	-									2 3 3		х	
B-60 (3-6)												х	
B-61 (3-6)		⊕										х	
B-62 (3-6)								•		ic 8		х	33 - 33 - 34
B-63 (3-6)								300 0 0	*			х	n 10
B-64 (3-6)												х	
B-65 (3-6)		\$ 0.00000000										X	
B-66 (3-6)				9						-8		х	
B-67 (3-6)		723								2964		X	
MW-1	х	×	х		Х			X			18	2	
MW-2	х	X	х		Х			х					
MW-3	х	Х	х		Х			х					
MW-4	х	х	Х		×	35		Х				10	

Notes:

Ag-Silver Ba-Barium Cd-Cadmium CN-Cyanide Hg-Mercury
Pb-Lead
Se-Selenium
Zn-Zinc

BTEX-Benzene, Toluene, Ethylbenzene, and total Xylenes TPH-Total Petroleum Hydrocarbons

SPLP-Synthetic Precipitation Leaching Procedure
TCLP-Toxicity Characteristic Leaching Procedure

2.3 GPR Survey/Exploratory Excavation

Due to the historical documentation which indicated that two USTs were previously installed in Parcel #2 (parking lot), and since there was no information as to where these tanks were located, Pioneer contracted STS Consultants, Ltd. (STS) to conduct a ground penetrating radar (GPR) and time-domain electromagnetic (TDEM) survey over Parcel #2 in an effort to locate any USTs that may still be present on the subject site.

On March 1, 2001, STS conducted the GPR/TDEM survey and the results revealed a single anomaly that, based on STS's professional opinion, appeared to be representative of a UST. Pioneer conducted focused probing in this area using a solid rod with a pointed tip and hit an obstruction at the depth a UST would typically be buried. Based on this data, exploratory excavation was conducted in this area on April 12, 2001. The exploratory excavation revealed that the object observed during the GPR/TDEM survey was a remnant foundation of a former building; thus, no evidence of current USTs were found during the subsurface investigation activities.

2.4 Soil Boring Advancement and Sampling

Between December 21, 2000, and June 20, 2001, Pioneer mobilized subsurface drilling equipment and OSHA-certified personnel to the subject site and advanced a total of 67 soil borings in specific areas throughout the site (Figure 1). The sampling plan was based on the RECs outlined in Pioneer's Phase I ESA, the layout of the subject site, and practical/spatial considerations.

Soil samples were obtained using a truck-mounted hydraulically driven sinker drill or a manual jackhammer-powered sinker drill, both of which were used to advance a stainless steel barrel-sampler lined with an acetate sleeve. The soil samples obtained from each interval were logged according to their predominant geological characteristics then divided into two representative portions. One portion of each sample was packed directly into pre-labeled, laboratory-provided

containers; designated for possible analysis; and stored in a cooler on ice to preserve the integrity of the sample. The remaining portion of each sample was sealed in a pre-labeled plastic bag and set aside to be field screened.

After a sufficient amount of time had elapsed to allow the soil samples sealed in the plastic bags to equilibrate to the surrounding air temperature, they were field screened using either a Photovac MicroFIDTM IS-3000 flame ionization detector (FID) or a Photovac MicroTipTM photoionization detector (PID). These devices are sensitive to a variety of VOCs and SVOCs and provide a qualitative indication of the relative concentrations of these compounds in the soil samples by measuring the amount of VOCs/SVOCs trapped in the headspace of the bags.

Soil samples were selected for analysis based on the scope of work, FID/PID readings and judgment of the Project Engineer. The samples were stored in a cooler on ice in the field, shipped overnight to an independent laboratory under standard chain of custody procedures, and submitted for the analysis of one or more of the following: VOCs, BTEX, acids, base/neutrals PNAs, TPH, various total, SPLP, and TCLP metals, total organic carbon (TOC) and/or pH. All analytical tests were performed in accordance with accepted US EPA Test Methods. A complete protocol for subsurface soil sampling is provided in Appendix C and a photographic log is included in Appendix D.

2.5 Monitoring Well Installation and Sampling

On March 9, 2001, Pioneer installed four groundwater monitoring wells at the subject site to assess the overall groundwater condition. The construction of the wells, including the location of the slotted screen, was determined from the water levels observed during the drilling activities. In order to account for fluctuations in the water table, the top of the slotted screen was set a minimum of one foot above the estimated water level. The wells were constructed of 10 feet of 2-inch diameter PVC slotted screen set approximately 15 feet below surface grade and 5 feet of PVC riser. The wells were finished at grade with a protective flush-mount well box.

Following installation of the wells, an elevation survey was conducted to obtain relative top of well casing elevations at each well location. An arbitrary site datum of 100.00 feet was used as a benchmark to initiate the survey. The elevations were determined using standard surveying techniques and were measured to the nearest 0.01 feet.

On March 15, 2001, groundwater samples were collected from the four monitoring wells. Prior to sampling, Pioneer gauged each monitoring well using a sonic interface probe to measure the depth to groundwater and to determine the presence or absence of free product to an accuracy of 0.01 feet. No free product was encountered. The monitoring wells were purged of a minimum of three well volumes of groundwater using dedicated high-density polyethylene (HDPE) disposable bailers so that a true and representative sample of formation water could be collected for analysis. Samples were then collected from the wells using HDPE disposable bailers and placed in containers suitable for the respective analysis and the appropriate preservatives were added to the samples collected for VOCs and metals as required. The samples were stored in a cooler on ice in the field and shipped overnight under standard chain-of-custody procedures to an independent laboratory. A complete groundwater sampling protocol is included in Appendix C. The samples were submitted for analysis of VOCs, acids, base/neutrals, PNAs, and Priority Pollutant total metals. All analytical tests were performed in accordance with accepted US EPA Test Methods. To note, MW-4 was resampled for VOCs on April 2, 2001, as the sample vials were accidentally broken at the laboratory. Further, MW-2 and MW-4 were resampled for total lead on April 12, 2001, to confirm the analytical results, as the initial samples contained a high concentration of suspended solids, which may have contributed to falsely elevated analytical results for this inorganic contaminant.

Monitoring well completion logs are presented in Appendix E. Pioneer's complete protocol for monitoring well installation and groundwater sampling is provided in Appendix C. A photographic log is provided for review in Appendix D.

2.6 Site Geology

The soil borings were advanced through a surface finish of asphalt or concrete and associated crushed limestone base material. The crushed limestone base material was encountered to approximately 3 ft. below surface grade (BSG). Fill material consisting of silty sand, gravel, cinders and bricks was encountered below the base material to approximately 6 ft. BSG. The soil underlying the fill material consisted of fairly uniform silty sand from approximately 6-10 ft. BSG. The sand was fine-grained; exhibited black, gray, and tan color variations; and was relatively dense. The sand was followed by a silty clay layer encountered from approximately 10 ft. BSG to the boring terminus, up to 30 ft. BSG. The silty clay contained varying percentages of fine-grained sand, retained a firm to stiff consistency, and exhibited brown and gray color variations.

According to an Illinois State Geological Survey (ISGS) map dated 1984 and titled Stack-Unit Mapping of Geological Materials in Illinois to a Depth of 15 Meters, by Kempton, John P. et al., and the ISGS map dated 1970 and titled Surficial Geology of the Chicago Region by Willman and Lineback (Appendix A), the subject site is situated on sediments of the Carmi Member of the Equality Formation. The Carmi Member is described as containing largely quite-water lake sediments with dominantly well-bedded silt with thin beds of clay. In this region, the Equality Formation is discontinuous and generally less than 20 feet thick. The Equality Formation is underlain by the Wedron Formation, which is described as containing silty and clayey soil generally greater than 20 feet thick.

Plate 1 of the ISGS Circular dated 1984 and titled *Potential for Contamination of Shallow Aquifers in Illinois*, by Berg, Richard C. et al. (Appendix A), identifies that the subject site is located in an area designated as "E". An "E" classification is described as containing at least 50 feet of uniform, relatively impermeable silty or clayey glacial till with no evidence of interbedded sand or gravel. An "E" classification indicates that there is a minimal potential for shallow aquifer contamination.

The above descriptions are consistent with observations made of the silty clay layer encountered at the subject site which suggests these sediments are native soils and laterally extensive. A complete listing of the geological conditions encountered during drilling is provided in the soil boring logs in Appendix E.

2.7 Site Hydrogeology

Evidence of groundwater was observed at inconsistent depths during the subsurface investigation. Generally, groundwater was observed within the fill material or sandy soil above the native silty clay layer. The silty clay soils at 5-6 feet BSG did not exhibit significant moisture content. These subsurface conditions are common in this area and create discontinuous, perched zones of groundwater that are not capable of a sustainable yield and does not exhibit any significant flow dynamic.

The shallow groundwater wells were specifically constructed to intercept this perched groundwater and thus, the depth to groundwater was typically between 5-6 feet BSG. The groundwater elevations observed at the site suggest groundwater has a general easterly component of flow. It should be noted that seasonal and yearly fluctuations in the perched groundwater table could significantly influence flow directions in such hydrogeologic settings.

Table 2.2

Groundwater Monitoring Well Data

Groundwater Monitoring Well	Depth to Water* 3/15/01	Groundwater Elevation	Depth to Water* 4/12/01	Groundwater Elevation
MW-1	5.30	94.39		2 N N N N N N N N N N N N N N N N N N N
MW-2	6.32	94.81	6.25	94.88
MW-3	5.06	94.64	Name of	7.60
MW-4	3.20	95.30	2.53	95.97

Notes: Referenced to arbitrary site datum of 100.00 feet

^{*} Referenced to top of inner casing that extends approximately3- 3.5 feet above surface grade.

⁻⁻ Indicates data not collected.

On March 15, 2001, a slug test was performed on MW-2 to gain an understanding of the hydrogeologic characteristics of the subsurface. The slug test involved removing a certain volume of water from the groundwater monitoring well and recording the change in water level with time as the well recharged. The data obtained from this procedure was subsequently used to calculate a site-specific hydraulic conductivity value, which is a measure of the rate at which groundwater flows through the soil.

Pioneer selected the Bouwer-Rice method for slug test data interpretation and employed this analysis using groundwater modeling software (AquiferTest, Version 2.56). The hydraulic conductivity was calculated to be 3.75 x 10⁻⁵ cm/sec. The slug test data is included in Appendix F for review.

Based on the site-specific geologic and hydrogeologic conditions, the groundwater at the site can be characterized as Class II groundwater. Therefore, in order to allow for the formal use of the soil and groundwater objectives specifically developed for Class II groundwater, a Class II groundwater demonstration follows. Pursuant to 35 IAC 620.220, groundwater can be classified as Class II if it *does not* meet the criteria for Class I groundwater. Class I groundwater is defined in 35 IAC 620.210 as groundwater located 10 ft. below the land surface *and* within:

• the minimum setback zone of a well which serves as a potable water supply and to the bottom of such well;

There are no potable water supply wells located within the City of Chicago. A groundwater ordinance prohibiting the installation and use of potable water wells was passed by the City of Chicago, on May 14, 1997. In addition, since the ordinance does not expressly prohibit the local government from installing and using potable water supply wells, the City of Chicago also entered into a Memorandum of Understanding (MOU) with the IEPA on July 3, 1997.

• unconsolidated sand, gravel, or sand and gravel which is 5 ft. or more in thickness and that contains 12 percent or less fines;

While sandy fill material was encountered beneath the site, there are no native unconsolidated sand, gravel, or sand and gravel units located at the site to a depth of at least 30 ft. BSG. As mentioned previously in Section 2.6, three separate ISGS references indicate the native soil in this area is comprised of silt and clay to at least 50 feet BSG.

• sandstone which is 10 ft. or more in thickness, or fractured carbonate which is 15 ft. or more in thickness; or

Pioneer did not encounter any sandstone or fractured carbonate to a depth of at least 30 ft. BSG during the site investigation.

• any geological material which is capable of sustained groundwater yield of 150 gallons a day or has a hydraulic conductivity of 1 x 10⁻⁴ cm/sec or greater.

As stated previously, an *in-situ* slug test was performed at the subject site and the hydraulic conductivity was calculated to be 3.75 x 10⁵ cm/sec. Based on the field determined hydraulic conductivity for the subject property, Pioneer calculated the well yield pursuant to Section 620.210(a)(4)(A). The results of the well yield calculations indicated that, from a 1-foot diameter borehole and 15 foot saturated thickness, the native soil is capable of a *sustained* groundwater yield of 0.006 gallons per day (Appendix G).

Pioneer believes that the combined site-specific geological information and the City of Chicago's groundwater ordinance and MOU support the classification of the groundwater as Class II groundwater, thereby justifying the use of the Class II objectives for both soil and groundwater.

3.0 TIER 1 EVALUATION

3.1 Analytical Results Introduction

For purposes of Pioneer's assessment work and in accordance with standard industry practices, the soil and groundwater sample analytical results contained herein are compared to the most stringent soil remediation objectives (SROs) for residential property and the most stringent groundwater remediation objectives (GROs) for Class II groundwater. These objectives, also referred to as Tier 1 SROs and GROs, are found in 35 Illinois Administrative Code (IAC) Part 742 (Tiered Approach to Corrective Action Objectives—TACO). The Tier 1 SROs and GROs represent contaminant concentrations that are acceptable to the Illinois Environmental Protection Agency (IEPA). The Tier 1 SROs are based on a risk assessment that incorporates a conservative exposure scenario and yields values relative to three primary exposure pathways, namely ingestion, inhalation and the soil component of the groundwater ingestion exposure route (migration to groundwater). The migration to groundwater route is further divided into Class I, and Class II groundwater designations. The Tier 1 GROs are also divided into Class I and Class II groundwater designations.

Although these Tier I SROs and GROs may not represent final remediation objectives for this site, the analytical results are herein compared to the most stringent objectives for residential property and Class II groundwater, for initial screening purposes.

3.2 Tier 1 Evaluation--Soil

The analytical results of the soil samples analyzed for VOCs, BTEX, acids, base/neutrals, PNAs, and/or various total metals indicated that certain COCs were detected above the IEPA's Tier 1 SROs for various pathways. The following table (Table 3.1) provides a detailed breakdown of the particular pathway-specific SROs that were exceeded for residential property. The primary COCs detected at the site are PNAs, lead and carbazole.

Table 3.1
Contaminants of Concern Exceeding Tier 1 SROs

		TACO Exposure Pathways	
Sample Location Depth in fee	Migration to Class II Groundwater	Ingestion	Inhalation (Residential)
B-2 (2-4)		Benzo(a)pyrene	v i
B-5 (6-9)		Benzo(a)pyrene Dibenzo(a,h)anthracene Beryllium	
B-6 (3-6)	š .	Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenzo(a,h)anthracene Ideno(1,2,3-cd)pyrene Lead	
B-9 (6-9)	Cis 1,2-Dichloroethene Trichloroethene Carbazole Benzo(a)anthracene Benzo(b)fluoranthene Dibenzo(a,h)anthracene	Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Ideno(1,2,3-cd)pyrene Lead	
B-10 (6-9)	Tetrachloroethene	Benzo(a)anthracene Benzo(a)pyrene Dibenzo(a,h)anthracene Arsenic Lead	
B-11 (6-9)		Benzo(a)pyrene Dibenzo(a,h)anthracene Lead	
B-12 (6-9)	 	Lead	
B-13 (3-6)		Benzo(a)pyrene Dibenzo(a,h)anthracene	
B-15 (9-12)		Benzo(a)pyrene	200
B-18 (8-10)		Lead	() () () () () () () () () ()
B-19 (3-6)	A250 3A80 M - 223	Benzo(a)anthracene Benzo(a)pyrene Lead	•
B-21 (0-3)		Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenzo(a,h)anthracene Ideno(1,2,3-cd)pyrene Lead	

Table 3.1 (continued)

Contaminants of Concern Exceeding Tier 1 SROs

		TACO Exposure Pathways	
Sample Location/ Depth in feet	Migration to Class II Groundwater	Ingestion (Residential)	Inhalation (Residential)
B-27 (0-3)		Benzo(a)pyrene	
B-27 (6-8)		Benzo(a)pyrene Dibenzo(a,h)anthracene Lead	
B-30 (2-4)	*	Benzo(a)pyrene Dibenzo(a,h)anthracene	
B-32 (0-3)		Lead	
B-33 (0-3)		Benzo(a)pyrene Dibenzo(a,h)anthracene Lead	
B-34 (0-3)		Benzo(a)pyrene Dibenzo(a,h)anthracene Lead	
B-35 (0-3)	Carbazole	Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Dibenzo(a,h)anthracene Ideno(1,2,3-cd)pyrene Lead	

It should be noted, pH-specific SROs for the migration to groundwater pathways are not provided for certain metals. Additionally, pH-specific SROs are only provided for pH values between 4.5 and 8 standard units (su). The majority of the soil samples exhibited pH values above 8 su. Thus, consistent with IEPA guidelines, the detected concentrations of these metals were also compared to the published State background concentrations as provided in Part 742, Appendix A, Table G. Upon this comparison, the total concentrations of several metals were detected above the State background levels in various soil samples. For further characterization, the soil samples exhibiting the highest total concentrations of these metals were re-analyzed utilizing the SPLP test method. Soil sample analytical results obtained using the SPLP method can be directly compared to the migration to groundwater Tier 1 SROs since these levels were developed specifically for use with this test method. The analytical results of the five soil samples re-analyzed for SPLP metals indicated that only one soil sample (B-19 [3-6]) exhibited concentrations above the Tier 1 SROs for Class II groundwater.

Due to the relatively high concentrations of total lead detected in several soil samples, the two samples exhibiting the highest concentrations of total lead from the initial round of sampling, B-6 (3-6) and B-10 (6-9), were re-analyzed for lead using the TCLP test method. Additionally, the soil sample exhibiting the highest level of total lead from the second sampling event, B-19 (3-6), was also submitted for analysis of lead by the TCLP test method. The TCLP test method is used to determine if the sample concentration exhibits the "characteristic" of toxicity for hazardous waste. The TCLP analytical results of these three samples were compared to the concentrations presented in 35 IAC 721.124(b)—Maximum Concentrations of Contaminants for the Toxicity Characteristic. The analytical results indicated that the levels of TCLP lead in B-6 (3-6) and B-10 (6-9) were below the regulatory limit of 5.0 mg/L (parts per million-ppm), and consequently, would not be considered "characteristically" hazardous. However, the analytical results of soil sample B-19 (3-6) indicated the TCLP lead concentration was 12 mg/l. Thus, additional subsurface investigation was conducted in this lead "hot spot" area in an attempt to delineate the characteristically hazardous soil. The following table summarizes the results of this additional work and Figure 3 depicts the estimated limits of the characteristically hazardous soil.

Table 3.2
Soil Analytical Summary for Lead "Hot Spot"

Sample			. 7 5 7
Location	Total Lead	SPLP Lead	TCLP Lead
B-6 (3-6)	1,610,000		136
B-18 (0-3)	4,160		
B-18 (8-10)	442,000		
B-19 (0-3)	86,300	848	1
B-19 (3-6)	4,030,000		12,000
B-46 (3-6)	1,770,000		80,000
B-47 (0-3)			89
B-47 (3-6)	3,240,000	;	37,600
B-47 (6-9)			<100
B-48 (3-6)			<100
B-49 (3-6)			103
B-50 (0-3)			<100
B-50 (3-6)			<50
B-50 (6-9)		-	<50
B-51 (0-3)			105
B-51 (3-6)			9.870
B-51 (6-9)	-		<100
B-56 (3-6)			167,000
B-56 (6-9)			<100
B-57 (3-6)			<100
B 58 (3-6)		V200	2,240
B-60 (3-6)		-	10,600
B-60 (6-9)	(100)		<100
B-61 (3-6)		-	15,000
B-61 (6-9)			<100
B-62 (3-6)			278
B-63 (3-6)			3,430
B-64 (3-6)		228	31,300
B-65 (3-6)			3,780
B-66 (3-6)		1220	653
B-67 (3-6)			16,600
Applicable SRO	400,000	100	5,000

The locations of the soil borings are illustrated on Figure 1 and the analytical results are summarized on Tables 1 through 10. The laboratory analytical reports are included in Appendix H.

3.3 Tier 1 Evaluation--Groundwater

The analytical results of the groundwater samples analyzed for VOCs, acid extractable compounds, base/neutral extractable compounds, PNAs, and Priority Pollutant total metals indicated that the lead detected in the samples form MW-2 and MW-4 was the only COC detected above the IEPA's Tier 1 GROs for Class II groundwater. As mentioned previously, MW-2 and MW-4 were resampled for total lead and extra steps were taken to reduce the amount

of suspended solids in the groundwater samples. The analytical results of this subsequent testing indicated that the level of total lead in the sample from MW-2 was below the Tier 1 GRO for Class II groundwater, however, the concentration in the sample from MW-4 still exceeded the Tier 1 GRO for Class II groundwater.

The locations of the monitoring wells are illustrated on Figure 1 and the analytical results are summarized on Tables 11 through 15. The laboratory analytical reports are included in Appendix H.

4.0 REMEDIATION OBJECTIVES DETERMINATION

The purpose of this remediation objectives determination is to establish the applicable guidelines and objectives at the subject site. While the subject site is currently being used for industrial purposes, much of the surrounding area currently is or is being developed as residential. Thus, so as not to limit the future use of this property, the Tier 1 standards for residential sites will be utilized. However, it is anticipated that pathway exclusion procedures and engineered barriers will be utilized to adequately manage the majority of subsurface impacts in-place. Given the site-specific conditions, the applicable SROs/GROs should be based on the Class II groundwater standards.

5.0 SUMMARY

Pioneer was contracted by The Retirement Program of Farley Inc. to conduct subsurface investigation activities and provide IEPA reporting services for the subject site. The purpose of the subsurface investigation was to fully characterize the RECs previously identified at the subject site by Pioneer while conducting a Phase I ESA. This work is being conducted to facilitate a prospective real estate transaction and ultimately an NFR Letter will be sought for the subject site pursuant to 35 IAC 740.430 and 415 ILCS 5/58.10.

Between December 21, 2000, and June 20, 2001, Pioneer advanced a total of 67 soil borings and installed 4 groundwater monitoring wells in specific areas throughout the site (Figure 1). The sampling plan was based on the RECs outlined in Pioneer's Phase I ESA, the layout of the subject site, and practical/spatial considerations.

The analytical results of the soil samples analyzed for VOCs, BTEX, acids, base/neutrals, PNAs, and/or various metals (total, SPLP, and TCLP) indicated that a variety of these COCs were detected above the IEPA's Tier 1 SROs for certain pathways. Further, levels of TCLP lead were detected at levels considered characteristically hazardous in certain soil samples collected from the east-central portion of the site.

The analytical results of the groundwater samples analyzed for VOCs, acid extractable compounds, base/neutral extractable compounds, PNAs, and Priority Pollutant total metals indicated that lead detected in MW-4 was the only COC above the Tier 1 GROs for Class II groundwater.

Based on the analytical results, the nature and extent of contamination has been adequately defined to the extent practicable given site constraints and practical considerations. The findings of the subsurface investigation indicate the following:

- The site has been impacted from past operations in various areas;
- The primary COCs are PNAs, carbazole and lead;
- The extent of impact is primarily limited to the upper 9 feet;
- There is no evidence of USTs currently located at the site and there is no evidence of contamination exceeding the applicable objectives associated with former USTs;
- · There was no evidence of "black sands" buried on-site; and
- A "hot spot" of characteristically hazardous lead impacted soil was identified below the eastcentral portion of the existing building.

6.0 CONCLUSIONS

Based on the nature and extent of contamination detected at the subject site, Pioneer recommends a Remedial Action Plan (RAP) be completed for the site and submitted to the IEPA for approval. This RAP should include the following elements:

- A full evaluation of the selected technology that will be implemented to remediate the characteristically hazardous lead detected in the soil below the east-central portion of the building.
- A fate and transport evaluation for all COCs exceeding applicable Tier 1 SROs and GROs and a determination as to whether the impacted or potentially impacted media will be remediated or if the groundwater pathway will be eliminated pursuant to 742.320.
- An evaluation of all COCs that exceed the ingestion and inhalation pathway and a
 determination as to whether an engineered barrier will be used to eliminate the potential
 for exposure pursuant to 742.310 and 742.315.

7.0 CLOSING REMARKS

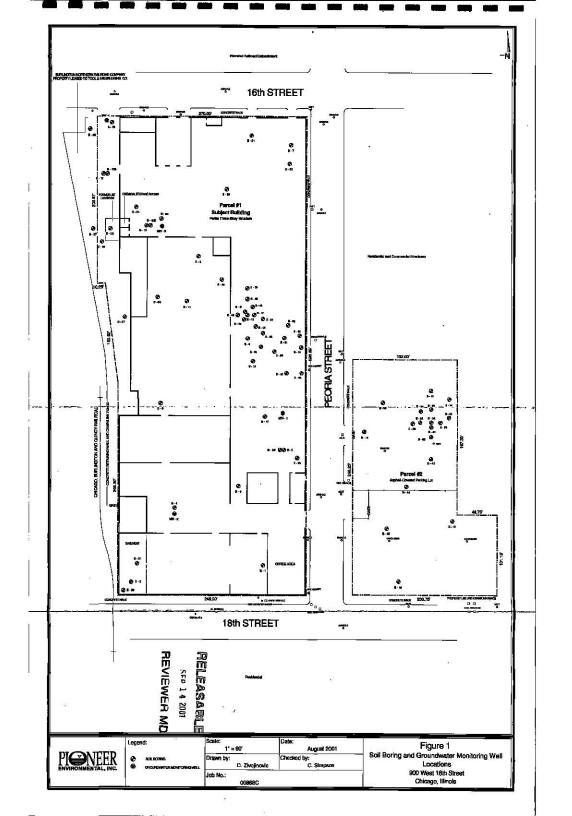
This report has been prepared for the sole use of the client identified in the report and can not be relied upon by other persons or entities without the joint permission of the client and Pioneer Environmental, Inc. (Pioneer). The observations and conclusions contained herein are limited by the scope and intent of the work mutually agreed upon by the client and Pioneer and the work actually performed. There are no warranties, implied or expressed, concerning the environmental integrity of areas and/or mediums not analytically tested.

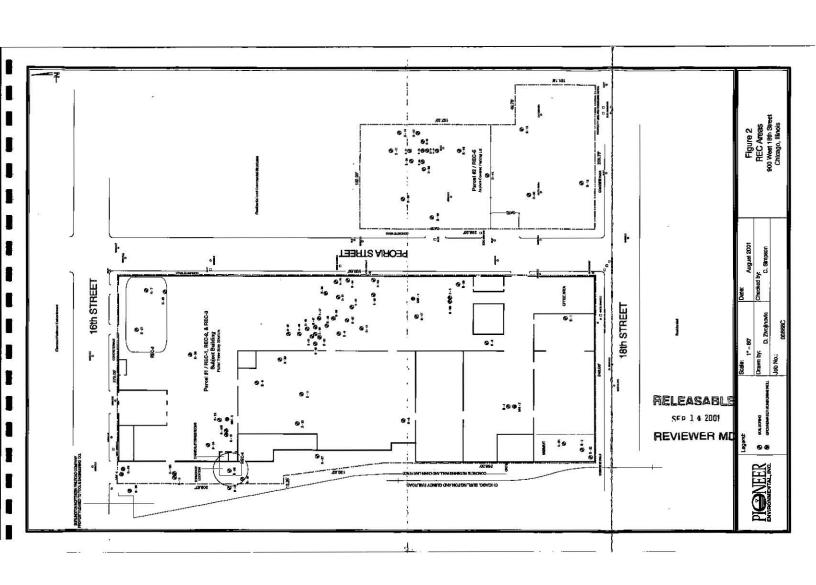
8.0 REFERENCES

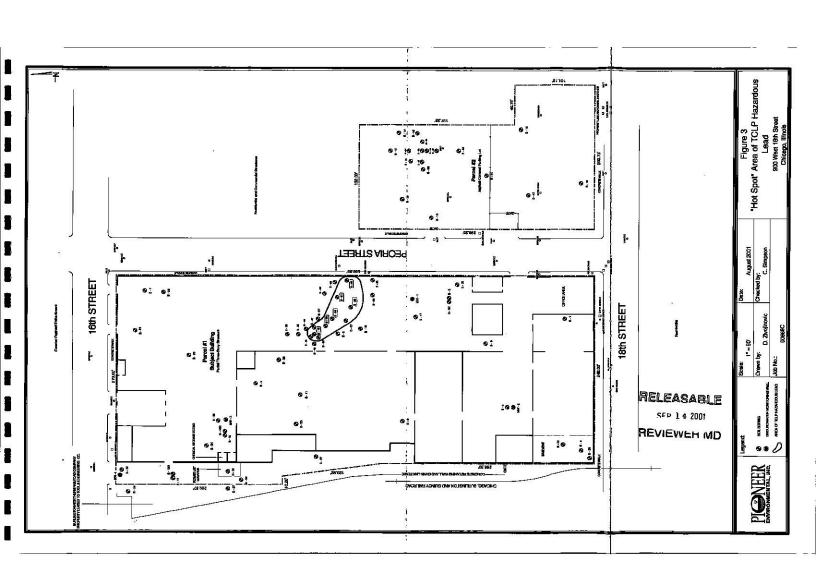
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Table No. 5: Soil Sample Analytical Results: BTEX

Table No. 6: Soil Sample Analytical Results: RCRA 8 Total Metals Plus Zinc-pH>8 Table No. 7: Soil Sample Analytical Results: RCRA 8 Total Metals Plus Zinc-pH<8

Table No. 8: Soil Sample Analytical Results: Priority Pollutant Total Metals Plus CyanidepH>8

Table No. 9: Soil Sample Analytical Results: SPLP Metals

Table No. 10: Soil Sample Analytical Results: Total, SPLP &TCLP Lead

Table No. 11: Soil Sample Analytical Results: Carbazole

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Table No. 13: Groundwater Sample Analytical Results: Acid Extractable Compounds

Table No. 14: Groundwater Sample Analytical Results: Base/Neutral Extractable Compounds

Table No. 15: Groundwater Sample Analytical Results: PNAs-

Table No. 16: Groundwater Sample Analytical Results: Priority Pollutant Total Metals

TABLE NO. 1 (page 1 of 2) Soil Sample Analytical Results: VOC1 900 W. 18th St. / Chicago, Illinois

																					Tier I	Sall Remediation Residential P		SR(k)
							24.01.000.000.000.000.000					- 8									Route Spec	ific Values	Migration to	Groundwater
ANALYTE CO. S. S.	(0-3)	B-2 (2-4)	B-3 (6-9)	B-4 (9-12)	B-S (6-9)	B-6 (3-6)	B-7 (6-9)	(6-5)	B-5 (6-9)	B-10 (6-9)	8-11 (4-9)	B-12 (4-9)	(0-3)	B-18 (0-3)	B-19 (0-3)	B-19 (3-6)	B-20 . (0-3)	B-20 (6-9)	B-21 (0-3)	B-21 . (6-9)	C Ingestion	Inhalaton	Class 1	Cles II
1,1,1-Trichiorosthane	< 10	<10	<10	< 10	< 10	<10	<10	< 10	150	< 10	47	< 10	d3	€1.2	ර	<5.8	đ. 1	⋖.2	<5.6	ø	-	1,200,000	2,000	9,600
1,1,2,2-Tetrachloroethane	< 10	< 10	<10	< 10	<10	<10	<10	< 10	< 10	< 10	< 10	< 10	€.3	-6.2	ব	<5.8	6.1	<5.2	4.6	ধ	-			
1,1,2-Trichiorgethane	< 10	<10	<10	< 10	<10	<10	<10	< 10	< 10	<10	< 10	< 10	6.3	<6.2	6	€.8	ර.1	⊲2	₫.6	d	310,000	1,800,000	20	300
1,1-Dichloroethane	< 10	< 10	< 10	<10	<10	<10	<10	< 10	100	<10	14 "J"	< 10	<5.3	<6.2	ব	<5.8	d.1	<5.2	₫.6	4	7,800,000	1,300,000	23,000	110,000
1,1-Dickloroethene	< 10	< 10	< 10	< 10	< 10	<10	<10	< 10	< 10	<10	< 10	<10	<33	<6.2	Ó	<5.8	6.1	-62	d.6	ব	-700,000	1,500,000	60	300
1,2-Dibroma-3-chloropropune	< 18	< 18	< 18	<18	< 18	<18	< 18	< 18	< 18	<18	<18	< 18	⊲33	<6.2	đ	€3.8	đ .1	42	₫.6	ব	460	11,000	2	2
1,2-Dibromosthans	< 10	< 10	< 10	<10	< 10	<10	<10	< 10	< 10	<10	<10	< 10	<5.3	<6.2	4	<5.8	45.1	-52	<5.6	45	7.5	170	0.4	4
1,2-Dichlaroethane	< 10	< 10	< 10	< 10	<10	<10	01>	< 10	< 10	< 10	< 10	< 10	4.3	<6.2	-6	<5.8	d.1	<5.2	<5.6 ∶	ব	7,000	400	20	100
1,2-Dickloropropune	< 10	< 10	< 10	< 10	<10	<10	< 10	< 10	< 10	< 10	< 10	< 10	<5.3	46.2	4	<5.8	45.1	<5.2	<5.6	-6	9,000	15,000	30	150
1,3-Dichloropropens (total)	< 20	< 20	< 20	< 20	< 20	<20	< 20	< 20	< 20	< 20	< 20	< 20	<10.6	<12.4	<10	<11.6	<10.2	<10.4	<11.2	<10	4,000	100	4	20
2-Butanone (MEK)	< 250	<250	< 250	< 250	< 250	< 250	1,600	1,600	< 250	2,300	1,500	2,000	<21	<25	<20	<23	<20	<21	<22	<20	-			4
2-Hezanone	< 10	< 10	< 10	<10	< 10	<10	< 10	< 10	< 10	<10	< 10	< 10	<11	<12	<10	<12	<10	<10	<11	<10		72	-	
4-Mattyl-2-Persianons (MIBK)	< 10	<10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	<10	<10	< 10	<11	<12	<10	<12	<10	<10	<11	<10		4		-
Acetone	· < 10	< 10	68	< 10	48	<10	53	61	190	59	70	180	<110	<120	<100	<120	<100	<100	<110	65.1.	7,900,000	100,000,000	16,000	16,000
Benzene	< 10	< 10	< 10	< 10	< 10	< 10	<10	< 10	< 10	< 10	<10	< 10	Ø.3	<6.2	- 45	<5.8	d. 1	<5.2	<0.5	ব	22,000	800	30	170
Bromodickloromethane	< 10	< 10	<10	< 10	< 10	<10	<10	< 10	< 10	< 10	< 10	< 10	<5.3	<62	4	<5.8	45.1	€.2	⋖.6	<5	10,000	3,000,000	600	600
Branoferm	< 10	< 10	<10	< 10	· < 10	<10	<10	< 10	< 10	< 10	< 10	< 10	43	<6.2	-5	<5.8	43.1	-62	<5.6	<5	81,000	53,000	800	800
Bromomethane .	< 10	< 10	<10	< 10	<10	<10	<10	< 10	< 10	< 10	< 10	< 10	<11	<12	<10	<12	<10	<10	< 1)	<10	110,000	10,000	200	1,200
Butanol	< 980	< 980	< 980	< 980	<950	<980	< 980	< 980	< 980	< 980	< 980	< 980	<530	e620	⊲00	<580	<510	<520	<560	<500	7,800,000	10,000,000	17,000	17,000
Carbon Dissifide	< 10	< 10	< 10	<10	< 10	<10	<10	< 10	< 10	<10	< 10	< 10	c 5.3	<6.2	đ	<5.8	4.1	<5.2	<5.6	d	7,800,000	720,000	32,000	160,000
Carbon Tetrachluride	< 10	< 10	<10	< 10	< 10	<10	<10	< 10	< 10	<10	< 10	< 10	d .3	<6.2	-5	₫.8	4.1	₫2	₫.6	d	5,000	300	70	330
Chlarabençane	< 10	< 10	< 10	<10	< 10	<10	<10	< 10	< 10	< 10	< 10	<10	-ರ.3	<6.2	- 45	d.8	₫. 1	<5.2	₫.6	4	1,600,000	130,000	1,000	6,500
Chloroahane	< 10	< 10	<10	< 10	< 10	<10	<10	< 10	< 10	< 10	< 10	< 10	<11	<12	<10	<12	<10	<10	II>	<10	-01		-	-
Chloroform	< 10	<10	<10	< 10	< 10	< 10	<10	< 10	< 10	< 10	< 10	< 10	d3	c 6.2	d	₫.8	6 .1	<52.	3.6	4	100,000	300	600	2,900
Chloromethane	< 10	≺10	<10	< 10	< 10	< 10	<10	< 10	< 10	< 10	< 10	< 10	<11	<12	<10	<12	<10	<10	<11	<10	-	-		, - ·
cis 1,2-Dichlorvethene	< 10	< 10	<10	< 10	<10	13.1	<10	< 10	1-300	20 "]"	67	< 10	<5.3	<6.2	4	<5.8	4. j	432	₫.6	. 8	780,000	1,200,000	400	1,100
Dibremochloromeskane	. < 10	< 10	<10	< 10	<10	< 10	<10	< 10	< 10	< 10	< 10	< 10	45.3	<6.2	-€	<5.8	đ .1	-52	<5.6	4	1,600,000	1,300,000	400	400
Ethylbeuzene	< 10	<10	<10	< 10 -	< 10	15	15	< 10	< 10	300	< 10	< 10	<5.3	<6.2	4	3"J"	d.]	45.2	€.6	13	7,800,000	400,000	13,000	19,000
Metisylana Chlorida	< 10	< 10	<10	< 10	< 10	<10	9128	27100亩	< 10	150.	55100,45	为区数 国际	₫.3	<6.2	ব	45.8	đ .1	€2	<5.6	4	85,000	13,000	20	200
Styrene	< 10	<10	<10	<10.	< 10	<10	<10	< 10	< 10	<10	<10	<10	<5.3	<6.2	ব	d.8	d. 1	<5.2	0.5	4	16,000,000	1,500,000	4,000	18,000
Tetrachloroethene	< 10	< 10	<10	< 10	< 10	30	<10	< 10	18.7 300 333	Sec. 6100	38-17.	< 10	d3	d 62	d	6	45.1	₫.2	₫.6	7	12,000	11,000	60	300
Toluene	< 10	< 10	<10	< 10	< 10	60	40	38	120	290	33	9,300	<5.3	≪6.2	6	9	ර.1	<5.2	<5.6	10	16,000,000	650,000	12,000	29,000
trons 1,2-Dichlorouthene	< 10	<10	<10	< 10	< 10	<10	<10	< 10	610	< 10	< 10	< 10	43	46.2	ব	<5.8	4 3.1	<52	<5.6	ර	1,600,000	3,100,000	700	3,400
Tricklaroethene	< 10	< 10	<10	< 10	< 10	50	<10	< 10	1 4 520 CM	24 200 A	< 10	< 10	€3	di2	ব	14	ර.1	€2	<3.6	3	58,000	5,000	50	300
Viryl Acetate .	< 53	< 53	< 53	< 53	< 53	<53	<53	< 53	< 53	< 53	< 53	< 53	<11	<12	<10	<12	<10	<10	<11	<10	78,000,000	1,000,000	170,000	170,000
Vinyl Chloride	< 10	<10	<10	< 10	<10	< 10	<10	< 10	< 10	<10	< 10 .	< 10	<11	<12	<10	<12	<10	<10	<11	<10	300	30	16	70
Xylenet (total)	< 30	< 30	< 30	< 30	< 30	160	< 30	< 30	< 30	1,100	∢30	<30	<5.3	<6.2	-5	38	2"3"	€.2	9	27	160,000,000	410,000	150,000	150,000

. . . *L*

Results Based in taging (parts per billion-pph)
EPA nest method SW 646, 826050035
EPA nest method SW 646, 826050035
"C Indicases not descended at reasond detention limits
"-- Indicases valve not evaluable
"-- Indicases valve detended between limit of descrition (LOD) and limit of quantitation (LOQ)
Shaded/Dasked cell indicases connectivation descrited above most springer The 1 SRO
(1) Pharmature SS LAC 474-These DA Approach to Cornective Action Objective Action

TABLE NO. 1 (page 2 of 2)
Soll Sample Analytical Results: VOCs
900 W. 18th St. / Chicago, Ritneis

												190								1		Residential Pr	operty Use "	
																_ 2				1	Route Spec	ific Values	Migration to	Groundwater
ANALYTE	B-22 (0-3)	B-22 (6-9)	B-23 (6-3)	B-23 (6-9)	B-14 :	B-24 (6-9)	(0-3)	B-27 (8-3)	B-27 (6-8)	(0-3)	B-29 (6-9)	B-29 (14-15)	B-32 (0-3)	B-32 (9-12)	B-33 (0-3)	B-33 (6-9)	(0-3)	. B-35 . (0-3)	B-37 (6-9)	B-38 (6-9)	Ingestion .	Inhabition	· Clas I	Clau II
1,1,1-Trichlorouthane	-5.4	45	6.4	6	<5.6	4	6.4	<7	₹5.2	<8.3	ব	<6.6	€.2	ব	<5.4	4	32	<6.8	46.5	5.9	-	1,200,000	2,000	9,500
1,1,2,2-Tetrackloroushane	6.4	6	45.4	6	4.6	ব	d. 4	<7	₹5.2	<8.3	4	₹ 45.6	52	d	<5.4	4	6.2	<6.8	<6.5	439		-		
1,1,2-Trichloroethane	54	45	<5.4	-6	<5.6	4	₫.4	<1	₹5.2	<8.3	4	₹5.6	42	4	<5.4	. 6	<5.2	<6.8	-6.5	₫.9	310,000	1,800,000	20	300
1,1-Dichloroethane	GA.	- 6	45.4	ø	<5.6	d	₫.4	~	<5.2	<8.3	d	₹6.6	-5.2	6	6.4	4	d.2	<6.8	46.5	0.9	7,800,000	1,300,000	23,000.	110,000
1,1-Dichlorouhene	4.0	ර	64	4	<5.6	6	64	4	<5.2	<8.3	<5	₹5.6	<5.2	4	<5.4	4	-62	<6.8	46.5	₹ 5.9	700,000	1,500,000	50	300
1,2-Dibromo-3-chioropropune	4.0	0	45.4	0	₫.6	ব	6.4	<7	₹5.2	<8.3	4	₹6.6	d2	ব	6.4	4	6.2	<6.8	€5	1 09	460	11,000	2	2
1,2-Dibromoeshane	6.4	d	€5.4	4	<5.6	ব	6.4	<	<5.2	<8.3	4	46.6	<52	4	<5.4	ರ	₫.2	<6.8	46.5	45.9	7.5	170	0.4	4
1,2-Dicklarvehane	3.4	. 0	€5.4	0	<5.6	4	d. 4	<7	₹5.2	<83	Ø	<6.6	42	6	-5.4	45	<5.2 .	<6.8	. 46.5	6.9	7,000	400	20	100
1,2-Dichloropropane	4.4	4	<5.4	4	₫.6	ব	₫.4	<7	€5.2	<8.5	6	€6.6	6.2	4	€5.4	0	-5.2	<6.8	46.5	1 59	9,000	15,000	30	150
1,3-Dichloropropens (total)	<10.8	<10	<10.8	<10	<11.2	<10	<10.8	<14	<10.4	<16.6	<10	<13.2	<10.4	<10	<10.8	<10	<10.4	<13.6	<13	<11.8	4,000	100	4	20
2-Butemena (MEK)	Q 1	<20	<22	<20	<23	<20	<21	<28	<21	<33	<20	<26	421	<20	√2 I	<20	<21	e 27	<26	24	-	_		-
2-Hexanona ·	<11	<10	41	<10	<11	<10	<11	<14	6.L	<17	<10	<13	<10	<10	<11	<10	<10	<14	<13	1 <12	9.5	-	· ·	T -
4-Methyl-2-Pentanana (MIBK)	<11	<10	<11	<10	<11	<10	<11	<14	<10	<17	<10	<13	<10	<10	<11	<10	<10	<14	<13	<12		-	7-1-	-
Acetone	<1.10	<100	<110	<100	<110	<100	<110	<140	110	<170	<100	<130	<100	<100	<110	<100	<100	<140	17"5"	19")"	7,800,000	100,000,000	16,000	16,000
Benzene	4.4	ರ	€.4	Ó	<5.6	4	<5.4	<7	<5.2	<8.3	đ	<6.6	€2	<5	d4	ď	-52	<6.8	46.5	₹5.9	22,000	800	30	170
Bromodichlaromethane	4.4	45	<5.4	45	<5.6	ব	d.	<	<5.2	<8.3	45	<6.6	<52	4	<5.4	ತ	<5.2	<6.8	-65	₫ <5.9	10,000	3,000,000	600	600
Branoform	45.4	8	6.4	d	<5.6	ব	6.4	<7	₹5.2	<8.3	4	<6.6	42	45	6.4	ব	<5.2	<6.8	≪6.5	5.9	81,000	53,000	100	300
Bromensethense	<11	<10	<11	<10	<11	<10	<11	<14	.<10	<17	<10	<13	<10	<10	411	<10	<10	<14	<13	i <12	110,000	10,000	200	1,200
Butanol	<540	<500	<540	<500	450	<500	440	<700	<520	<830	<500	<660	<520	<500	440	d00	<320	<680	<650	1 450	7,800,000	10,000,000	17,000	17,000
Carbon Distelfide	4	d	<5.4	4	₫.6	4	₫.4	<	13	<8.3	4	. 46.6	<5.2	4	<5.4	4	<5.2	<6.8	₹6.5	1 4.9	7,800,000	720,000	32,000	160,000
Carbon Terrachleride	₫ A	d	45.4	d	<5.5	4	Ø.A	<7	<5.2	<8.3	45	<5.5	62	ব	6.4	ර	₫.2	<6.8	₹6.5	€.9	5,000	300	70	330
Chlorobenzene	6.4	Q	<5.4	Ó	≺5.6	4	€.4	<1	<5.2	<8.3	4	<6.6	62	d	64	4	<5.2	<6.8	46.5	i <5.9	1,600,000	130,000	1,000	6,500
Chloroethane	<11	<10	<11	<10	d)	<10	<11	<14	<10	<17	<10	<13	<10	<10	411	<10	<10	<14	<13	<12	-	-	-	-
Chieroform	4.4	ර	d.4 .	6	ර.6	4	4	<	⋖5.2	<8.3	ರ	<5.6	₫.2	đ	€.4	ব	-62	<6.8	€5	d9	100,000	300	600	2,900
Chieromethase	<11	<10	-d1	<10	<11	<10	<11	<14	<10	<17	<10	<13	<10	<10	<11	<10	<10	<14	<13	<12	-	-	- 1-	
cie 1,2-Dichloroethens	64	4	6.4	8	46	4	dA.	<	<5.2	<8.3	ব	<6.6	432	13	45.4	0	-5.2	<6.8	46.5	. 49	780,000	1,200,000	. 400	1,100
Dibromochioromethana	45.4	್ಷಕ	d.A	-6	₫.6	<5	€.4	<1	₹5.2	<8.3	ব	₫.6	d2	ৰ্	OA.	4	<5.2	<6.8	45.3	€ <5.9	1,600,000	1,300,000	400	400
Ethylbanzena	4.6	6	43.4	ব	₫.6	6	€.4	<7	11	<8.3	5	<6.6	₫.2	4	<5.4	4	62	<6.8	465	4 6.9	7,800,000	400,000	13,000	19,000
Mathylene Chloride	<5.4	- 6	-6.4	4	₫.6	4	4.4	<	d.2	-8.3	4	<6.6	3.1.	2"]"	<5.4	3"3"	2","	<6.8	≪6.5	3 375	85,000	13,000	20	200
Styrene	45.4	6	d. 4	6	45.6	4	6.4	4	€5.2	<8.3	ර	<6.6	₫.2	ব	€.4	4	62	<6.8	46.5	9 2.4	16,000,000	1,500,000	4,000	18,000
Tetrachioraethene	45.4	6	4.6	4	46	d	d.A	<0	<5.2	<8.3	4	<6.6	₹.2	d	<5.4	4	€.2	<5.8	<6.5	€5.9	12,000	11,000	60	300
Toluma	<\$A	d	<5.4	4	<5.6	27	<5.4	<1	6	<8.3	<5	€6.6	€2	ব	-SA	4	2.1.	<6.8	3.1.	6.9	16,000,000	650,000	12,000	29,000
trans 1,2-Dichloroethene	<5.4	4	6.4	4	⊲.6	d	d.4	<7	43	<8.3	4	€.6	€.2	2"1"	<5.4	4	62	<6.8	≪5.5	57	1,600,000	3,100,000	700	3,400
Trichloroethene	6.4	ব	6.4	4	₫.6	٥	d .4	<1	d.1	<8.3	ರ	<6.6	₫.2	5"3"	€.4	ব	€2	<6.8	46.5	7 0.9	58,000	5,000	. 60	300
Vinyl Acutate	<11	<10	dl	<10	<1l	<10	41	<14	<10	<17	<10	<13	<10	<10	<11	<10	<10	<14	<13	₹ <5.9	78,000,000	1,000,000	170,000	170,000
Vinyl Chloride	<11	<10	41	<10	<11	<10	<(1)	<14	<10	<17	<10	<13	<10	<10	<11	<10	<10	<14	<13	<12	300	30	10	70
Xvienes (sotal)	₹5.4	4	dA.	6	<5.6	2	€.4	37	97	<8.3	9	cf.6	62	4	54	4	45.2	<6.8	45	<12	160,000,000	410,000	150,000	150,000

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TABLE NO. 2 (page 1 of 2) I Sample Analytical Results: Acid Extractable 900 W. 18th St. / Chicago, Illinois

										9	7.				8		2 (V) (A	Valuesava L	roperty Use. (1)	4.6
	V.5:																Route Spec	ific Values	Migration (to Grotindwater
ANALITE	B-2 ((2-4)(2)	# B-4 # (9-12)	B-5 (6-9)	8-6 (3-6)	B 7 (6-9)	B-9 (6-9)	B-10 (6-9)	B-11 (6-9)	#-12 -£(6-9)	B-17 (0-3) j	B-18 (0-3)	B 19 (0-3)	B-20 (0-3)	7.8-21 ((0-3))	B-22 (0-3)	B-13 (0.3)	Ingestion	Inhalation	Can I	Class II
2,4,5-Trichlorophenol	<100	< 100	< 100	< 100	< 2,500	< 500	< 500	<100	< 100	<800 (<800	<800	<800	<800	<800	<800	78,000,000		270,000	1,400,000
2,4,6-Trichlorophenol	<35	<35	< 35	< 35	< 875	<175	< 175	< 35	< 35	<330	<330	<330	<330	<330	<330	<330	58,000	200,000	200	770
2,4-Dichlorophenal	<40	< 40	<40	<40	< 1,000	< 200	< 200	< 40	< 40	<330;	<330	<330	<330	<330	<330	<330	230,000	-	1,000	1,000
2,4-Dimethylphenol	<160	< 160	< 160	< 160	<4,000	< 800	< 800	<160	< 160	<330 '	<330	<330	<330	<330	<330	<330	1,600,000	_	9,000	9,000
2,4-Dinitrophenol	<49	< 49	< 49	< 49	< 2,450	< 245	< 245	< 49	< 49	<800 ^¹	<800	<800	<800	<800	<800	<800	160,000	_	200	200
2-Chiorophenel	< 33	< 33	< 33	< 33	< 825	< 165	< 165	< 33	< 33	<330 .	<330	<330	<330	<330	<330	<330	390,000	53,000,000	4,000	4,000
2-Methyl-4,6-dinitrophanal	< 37	<37	< 37	< 37	< 925	< 185	< 185	< 37	< 37	<330	<330	<330	<330	<330	<330	<330	3,900,000		15,000	15,000
2-Methylphenol (o-Cresol)	<57	< 57	< 57	< 57	< 1.425	< 285	< 285	< 57	< 57	<330 °	<330	<330	<330	<330	<330	<330			. 44	
2-Nitrophenol	<48	< 48	<48	< 48	< 1.200	< 240	< 240	< 48	< 48	<330	<330	<330	<330	<330	<330	<330		-	W-2	
4-Chloro-3-methylphenal	<35	<35	< 35	< 35	< 875	< 175	< 175	< 35	< 35	<800 '	<800	<800	<800	<800	<800	<800		1	-	
M & P-Cresol	< 63	< 63	< 63	< 63	< 1,575	350 "J"	< 315	< 63	< 63	<330	<330	<330	<130	<330	<330	<330			-	
4-Nitrophenol	< 34	<34	< 34	< 34	< 850	< 170	< 170	< 34	< 34	<800	<800	<800	<800	<800	<800	<800	TI -	-		_
Benzoic Acid	< 130	< 130	< 130	< 130	< 3,250	< 650	< 650	< 130	< 130	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	310,000,000	-	400,000	400,000
Pentacklorophenol	120	<34	50 'J''	< 34	< 850	< 170	< 170	< 34	< 34	<800 `	<800	<800	<800	<800	<800	<800	3,000	-	30	140
Phenol	48 "J"	€41	<41	<41	< 1.025	< 205	< 205	< 41	< 41	<330	<330	<330	-130	₹330	<330	<330	47,000,000		100,000	109,000

Rosults Hand in ug/kg (parts per billion)
EFA test method SW464, EEP

- 't latificates not detwood at stated detection limits
--' 't indicates value not available

--' 't indicates value not available

--' 't indicates value observation detected between limit of detection (LOD) and limit of quantization (LOQ)

Standed Broklet cell indicates nonconception detected above mant stringers (Test 1 SRO

(1) Paraments 0 53, LAG '424. Tested Approach to Currorive Action (Options)

RELEASAR: E SEP 1 - 2201

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TABLE NO. 2 (page 2 of 2) Soil Sample Analytical Results: Acid Extractable Compounds 900 W. 18th St. / Chicago, Illinois

				15	¥		20		×			法法律	24 1 2 N 2 N	Objectives (Tier I S.	3 2 3
ANALYTE	B-24 (0-3)	B-25 (0-3)	B-25 (6-9)	B-27 (0-3)	B-29 (0-3)	B-30 (2-4) 5	#-11 (4-6)	1-3-32 (0-3)	B-33 , (0-3)	B-34 4 (0-3)	(0-3)	Ingettion	Inhalation	Class (Class II
2,4,5-Trichlorophenol	<800	<800	<800·	<800	<800	<800	<800	<800	<800	<800	<16.000	78,000,000	- 1	270,000	1,400,000
2,4,6-Trichlorophenol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6.600	58,000	200,000	200	770
2,4-Dichlorophenol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	,230,000	- 1	1,000	1,000
2,4-Dimethylphenol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6.600	1,600,000	-	9,000	9,000
2,4-Dinitrophenol	<800	<800	<800	<800	<800	<\$00	<800	<800	<800	<800	<16,000	160,000	_	200	200
2-Chiorophenol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	390,000	53,000,000	4,000	4,000
2-Methylphenol (o-Cresol)	<330	. <330	<330	<330	<330	<330	<330	<330	<330	<330	<6.600	3,900,000		15,000	15,000
2-Nitrophenal	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	28-802-22		4-70	_
M & P-Cresol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	-	-		-
2-Methyl-4,6-dinitrophenol	<800	<800	<800	<800	<800	<800	-c800	<800	<800	<800	<16,000		-	-	
4-Chioro-3-methylphenol	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	-	-	_	-
4-Nitrophenol	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800	<16,000	-	- 1	_	-
Benzoic Acid	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<i,600< td=""><td><1,600</td><td><1,600</td><td><32,000</td><td>310,000,000</td><td>- 1</td><td>400,000</td><td>400,000</td></i,600<>	<1,600	<1,600	<32,000	310,000,000	- 1	400,000	400,000
Peniachlorophenol	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800	<16,000	3,000	-	30	140
Phenol	-130	-330	~330	-330	-330	-220	-330	-930	-330	-420	-6 600	47 000 000	-	100 000	100,000

- Notes

EPA test method SW846, 8270

"<" indicates not detected at stated detection limits
"..." indicates value not available.

"--" indicates value not available.
"I" indicates analyse detected between limit of detaction (LOD) and limit of quantitation (LOQ)

Shaded/Bolded cell indicates concentration detected above most stringent Ter 1

(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

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TABLE NO. 3 (page 1 of 2) Soil Sample Analytical Results: Base/Neutral Extrac 900 W. 18th St. / Chicago, Illinois

е		1.5						22	b		į								Ther ! S	oil Remediation Residential P	Objectives (Tier :	I SROs)
																			Acute Spe	ific Values	Migration to	Groundiester
AMALYTE	B-7 (2-4) .	(9-12) ·	B-5 (6-9)	B-6 (3-6)	B-7 (6-9)	(6.9)	· B-10	B-11 (6-9)	B-12 (4-9)	B-17 (9-3)	B-18 (0-3)	B-19 (0-3)	B-20 (0-3)	B-21 (9-3)	B-22 (0-3)	B-23 ((0-3)	B-21 (4-9)	B-24 (8-3)	Agastion	Inhelation .	Class I	Clas II
1,2,4-Trichlorobenzene	< 35	< 35	< 35	<35	< 875	< 175	< 175	< 35	< 35	<330	<330	<330	<330	<330	<330	<330	<330	<330	780,000	3,200,000	5,000	53,000
1,2-Dichlarabenzese	< 34	<34	< 34	<34	< 850	< 170	<170	< 34	< 34	<330	<330	<330	<330	<330	<330	<330	<330	<330	7,000,000	\$60,000	17,000	43,000
1,3-Dichlorobenzene	< 33	< 33	< 33	<33	< 825	< 165	< 165	<33	< 33	<330	<330	<330	<330	<330	<330	<330	<330	<330 ·		- 427		
I,4-Dichlorobenzese	< 38	< 38	< 38	< 38	< 950	< 190	< 190	< 38	< 38	<330	<330	<330	<330	<330	<330	<330	<330	<330			2,000	11,000
2,4-Dinitratolaene	< 45	<45	<45	<45	< 1,125	< 225	< 225	<45	< 45	<330	<330	<330	<330	<330	-330	<330	<330	<330	900	100	D.8	0.8
2,6-Dinitrotoluene	< 45	<45	<45	<45	< 1,125	< 225	< 225	<45	< 45	<330	<330	<330	<330	<330	<330	<330	<330	<330	900		0.7	0.7 ₹
2-Chloronaphthalene	< 41	<41	<41	<41	< 1,025	< 205	< 205	<41	- <41	<330	<330	<330	<330	<330	<330	- <330	<330	- <330	i		- "	-
2-Methylnaphthalene	< 53	< 53	320	110 "["	< 1,325	5,300	4,000	< 53	< 53	<330	<330	<330	<330	<330	<330	<330	<330	<330	-	100		-
2-Nitrocoiline	< 60	< 50	< 60	< 60	< 1,500	<300	< 300	< 60	< 60	<800	<800	<800	⊲100	<800	<800	<800	<800	<800	-	700		120
3,3'-Dichlorobenzidine	< 260	< 260	< 260	< 250	< 13,000	<1300	< 1300	< 260	<260	<330	<330	<330	<130	<330	c330	<330	<330	<330	1,000		7	33
3-Nitromiline	< 59	< 59	< 59	<59	< 1,475	< 295	< 295	< 59	< 59	<200	<800	<500	⊲100	<800	<900	<500	⊲800	<800				
4-Branophenylphenylether	< 47	< 47	< 47	<47	< 1,175	<235	< 235	< 47	< 47	<330	<330	<330	<330	<330	<330	<330	<330	<330		-		
4-Chloroaniline	< 180	< 180	. < 180	< 180	< 4,500	<900	< 900	< 180	< 180	<330	-330 Å	<330	⊲30	<330	<330	<330	<330	<330	310,000	N=	700	700
4-Chiorophenylphenylether	< 49	<49	< 49	< 49	< 1,225	<245	< 245	<49	< 49	<330	<330	<330	<330	<330	<330	<330	<330	<330	1983	2.00		975
4-Nitroanilisa	< 85	< 85	< 85	< 85	< 2,125	<425	< 425	<85	< 85	<200	<800 .	<800	<\$00	<800	<500	<800	<800	<800		-		
Bis(2-chloroethoxy)methans	< 43	<43	<43	<43	< 1,075	<215	<215	<43	< 43	<330	<130	<330	<330	<330	<330	<330	<330	<130	-			-
Bis(2-chioroethyl)ether	< 36	< 36	< 36	< 36	< 900	< 180	< 180	<36	< 36	<330	<330	<330	<330	<330	<330	<330	<330	<330	600	200	0.4	0.4
Bis(2-ethylhexyl)phtholate	< 82	< 52	470	83 "]"	< 2,050	<410	<410	< 82	82 "J"	<330	<330	53"/"	<330	<330	<330	<330	<330	<330	46,000	31,000,000	3.600.000	31,000,000
Burythernylphthalate	< 45	<46	440	<46	< 1,150	< 230	< 230	<46	< 46	<330	<330	<330	<330	<330	<330	<330	<330	<330	16,000,000	930,000	930,000	930,000
Carbazole	<5l	<51	<51	<51	< 1,275	3,600E	310.1.	<51	< 51	<330	<330	<330	<330	140"/"	<330	<330	<330	<330	32,000		600	2,800
Di-n-butyl phthalate	< 130	< 130	190 "J"	< 130	< 3,250	< 650	<650	< 130	<130	<330	<330	<330	<330	<330	<330	<330	<330	<330	7,800,000	2,300,000	2,300,000	7,300,000
Di-n-octyl phthalate	< 51	<51	<51	100 "J"	< 1,275	< 255	< 255	<51	< 51	<330	<330	<330	<330	<330	<330	<330	<330	<330	1,500,000	10,000,000	10,000,000	10,000,000
Dibergofuran	< 40	< 40	72 'F'	85 "J"	< 1,000	11,000	400 °I*	<40	< 40	<330	<330	<330	<130	140"1"	<330	<330	<330	<330	- 1	-		-
Dietkyl phthalate	<42	< 42	< 42	₹42 -	< 1,050	<210	<210	<42	< 42	<330	<330	<330	<330	<330	<330	<330	<330 ·	<330	63,000,000	2,000,000	470,000	470,000
Dimethyl phthalate	<45	< 45	< 45	< 45	< 1,125	<225	< 225	<45	< 45	<330	<330 ,	<330	<330	<330	<330	<330	<330	<330	T -	-		949
Hezochlorobenzene	< 43	< 43	< 43	< 43	< 1,075	<215	< 215	<43	< 43	<330	<330	<330	<130	<330	<330	<330	<330	<330	400	1,000	2,000	11,000
Hexachlorobusadiene	< 33	< 33	<33	₹ 33	<825	< 165	< 165	< 33	< 33	<930	<390	<330	<330	<330	<330	<330	<330	<330	30			144
Hezachlorocyclopentaliene	< 87	<87	< 87	< 87	< 2,175	<435	< 435	<87	< 87	<330	<330 '	<330	<130	<330	<330	<330	<330	<330	550,000	10,000	400,000	2,200,000
Hezachloroethans	< 32	< 32	< 32	< 32	<800	<160	< 160	< 32	< 32	<330	<330	<330	⊲30	<330	<330	<330	<330	<330	78,000	=	500	2,600
Isopherone	. <34	<34	<34	< 34	< 850	<170	< 170	< 34	< 34	<330	<330	<330	<330	<330	<330	<330	<330	<330	5,600,000	4,600,000	8,000	8,000
N-Nitrozo-di-n-propylanime	<42	< 42	<42	< 42	< 1,050	<210	< 210	<42	< 42	<330	<330	<330	<330	<330	<330	<330	<330	<330	90	-	0.05	0.05
N-Nitrosodiphenylamise	< 43	< 43	< 43	<43	< 1,075	<215	< 215	<43	< 43	<330	<330	-4330	<330	<330	<330	<330	<330	<330	130,000		1,000	5,600
Nitrobertrene	< 46	<46	< 46	<46	< 1,150	< 230	< 230	<46	< 46	<330	<330	<330	<330	<330	<330	<330	<330	<330	39,000	92,000	100	100

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TABLE NO. 3 (page 2 of 2) Soil Sample Analytical Results: BaselNeutral Extract 900 W. 18th St. / Chicago, Illinois

								768					si si								Ter I Se	el Remediation Residential P	Objectives (Ties	1 SRO ₄)
						13						-	Vi							- 8	Route Spe	eific Volum	Afference to	Groundwater
ANALYTE	B-25 (0-3)	B-27 (0-3)	B-29 (9-3)	B-32 (0-3)	B-32 (9-12)	H-33 (0.3)	B-33 (6-9)	B-34 (0-3)	21-35 (0-3)	3-6)	B-40	B-46 (4-9)	B-41 (3.6)	B-41 (6-9)	B-42 (3-6)	B-42 (6-9)	B-03 (6-3)	8-63 (3-6) 1	B-44 (6-9)	B-45 (69)	Ingestion	Inhabation.	Chai L	* Clin II
1,2,4 Trichlorobenzene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	⊲30	780,000	3,200,000	5,000	53,000
1,2-Dichlarobestzene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3.300	<330	<330	7,000,000	560,000	17.000	43,000
1,3-Dichlorobeazene	<330	<330	<330	-330	-330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	-	-	-	-
1,4-Dichlarobenzene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	₫30	<330	<330	<3,300	<330	<330	-	-	2,000	11,000
2,4-Dinitrotoluene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	900	-	0.8	8.0
2,6-Dinitrotoluene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330 ,	<330	<330	<330	<330	<330	<3,300	<330	₹30	. 900	-	. 0.7	0.7
2-Chloronaphthaiene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<130	<330	<330	<3,300	<130	₹330	-	-	 27	-
2-Methylnaphthalene	350	<330	<330	<330	<330	<330	<330	230"J"	7,900	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	-	-	-	-
2-Naroantline	<800	<800	<800	<800	<800	<800	<\$00	<800	<16,000	<800	<800	<800	<800	<800	<800	<800	<800	<8,000	-400	<2000	-		-	-
3.5'-Dichiorobenzidine	<330	<330	<350	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<130	<330	1,000	-	7	33
3-Naroaniline	<800	<800	<800	<800	<800	<800	<800	<800	<16,000	<800	<800	<800	<#00	<800	<800	<b00< td=""><td><800</td><td><8,000</td><td><800</td><td><\$00</td><td>_</td><td>-</td><td></td><td>-</td></b00<>	<800	<8,000	<800	<\$00	_	-		-
4-Bromophenyiphanylether	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	-			
4-Chlorocniline	<330	<330	<330	<330	<330	<330	<130	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	310,000	-	700	708
4-Chlorophanylphanylether	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	-330	<330	<330	<330	<330	<330	<3,300	<330	+330	-		-	
4-Nitroppiline	⊲800	<.800	<800	<800	<800	<800	<800	<800	<16,000	<\$00	<800	<800	<800	<800	<800	<800	<800	<8,000	<800	-\$00	-	- I		-
Bis(2-chloroethoxy)methone	<330	<330	<330	<330	<330	-330	<330	<330	<6,600	<330	⊲30	<330	<330	<330	⊲30	<330	<330	<3,300	<330	<330	1-1	-	-	-
Bis(2-chieroethyl)ether	<330	<330	<330	<330	<330	<330	<130	<330	<5,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	230	600	200	0.4	0.4
Bls(2-ethylhexyl)phthaiate	<330	48°J"	<330	<330	42"J"	<330	<330	65","	<6,600	<330	<130	<330	<330	<330	≥330	<330	<330	<3,300	⊲30	-330	46,000	31,000,000	3,600,000	31,000,000
Butylbenzylohthalate	<130	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	₹30	16,000,000	930,000	930,000	930,000
Carbazole	<330	<330	<330	<330	<330	56")"	<330	1,000	12,800	<330	<330	<330	<330	<330	49°J"	<330	<330	310"5"	<330	<330	32,000		600	2,800
Di-n-buryl piethalate	<330	€330	<330	<330	<330	65°J*	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	7,800,000	2,300,000	2,300,000	2,300,000
Di-n-octyl phthalate	⊲30	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	1,600,000	10,000,000	10,000,000	10,000,000
Dibenzofinan	<330	<330	<330	<330	<330	<330	<330	430	24,000	<330	<330	<330	<330	<130	<130	<330	<330	<3,300	<330	₹30	-	-	-	
Diethyl phthalete	<330	<330	<330	<330	<330	<330	<130	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<130	<330	63,000,000	2,000,000	470,000	470,000
Dimetry! phtholase	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	∠330	∠330	<330	<3,300	<330	4330	-	-	756	-/
Hexachlorobenzese	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	400	1,000	2,000	11,000
Hexachlorobutadisms	<330	⊴30	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330		-		-
Hexschlorocyclopentaliese	<130	<330	<330	<330	<330	<330	<130	<330	<5,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	₹30	550,000	10,000	400,000	2,290,000
Hexachloroethune	<330	<330	<330	<330	<330	<330	<330	<330	<5,600	<330	<330	₹330	<330	<330	<330	<330	<330	<3,300	<130	<330	78,000	-	500	2,600
Isophorone	<330	<330	<330	<330	<330	<330	<130	<330	<6,600	<330	<330	<330	<330	<130	⊴30	<330	<330	<3,300	<330	<330	15,600,000	4,600,000	8,000	8,000
N-Nitreso-di-n-propylamine	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<330	<330	90	-	0.05	0.05
N-Narozodiphenylamine	<330	<330	<330	<330	<330	<330	<330	<330	≪6,600	<330	<330	<330	<330	<330	<130	<330	<330	<3,300	<330	<330	130,000	-	1,000	5,600
Microbenzene	<330	<330	<330	<330	<330	<330	<330	<330	<6,600	<330	<330	<330	<330	<330	<330	<330	<330	<3,300	<130	<\$30	39,000	92,000	100	100

Renaits Eated in ug/Ng (pacts per billism)
EPA test method SW446, 8270

**C indicates volt detected at stand detection limits
**-" indicates value not available
**-" indicates value not available
**-" indicates value not available
**-" indicates value for indicates value not available
**-" indicates value for indicates value for indicates value not available
**-" indicates value for indicates on concentration detected above more stringars The 1 ERO
()) Pharmaster 3-5 Loc M-2-Therail Approach to Courteire Action Objective Action
()) Pharmaster 3-5 Loc M-2-Therail Approach to Courteire Action Objective Action
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TABLE NO. 4 (page 1 of 3) Soil Sample Analytical Results: PNA Comp 900 W. 18th St. / Chloago, Illinois

					385			12								71# 1 So	il Remediation Objectives Residential Property Us	
	380								28							Route Specifi Z Values	Migration to	Groundwater
ANALYTE	2-4)	B-4 (9-12)	B-3 (6-9)	B-6	. B-7 (6-9)	B-9 (6-9)	B-10 (6-9)	B-11 (6-9)	B-12 (6-9)	B-13 (3-6)	B-15 (9-12)	B-16 (6-9)	B-17 (0-3)	6-9)	B-18 5 (0-3) ⊕	Ingestion	Class I	Class II
Naphthalene	< 30	< 30	180	320 °J"	< 850	2,300	1,100	< 30	< 30,	180	150	<30	<3.3	<3.3	13"F	3,100,000	84,000	420,000
Acenaphthene	< 21	< 21	260	630	< 1,000	17,000	370	25 "J"	< 21	92	26 "3"	< 21	<3.3	<3.3	<66	4,700,000	570,000	2,900,000
Anthracene	< 36	< 36	180	8,900	< 975	60,000	550 °J*	54 "3"	< 36	360	56 "J"	< 36	<3.3	<3.3	21"J"	23,000,000	12,000,000	59,000,000
Fluoranthene	160	<38	610	10,000	< 825	160,000	2,400	220	< 38	1,600	210	< 38	<3.3	<3.3	170	3,100,000	4,300,000	21,000,000
Fluorene	< 47	< 47	380	1,100	< 950	37,000	720 "J"	< 47	< 47	160	< 47	< 47	<3.3	3.3	140	3,100,000	560,000	2,800,000
Pyrene	190	< 45	590	6,900	< 1,175	270,000	2,200	240	< 45	2,400	210	< 45	<3.3	<3.3	1.9"J"	2,300,000	4,200,000	21,000,000
CARCINOGENIC PNAJA		12 3	7. 10027	PEAL BY	4	是 被	mer rate	A	de Par	**) The state of	第一个	心理 代表	14.	406 A 770	A. H. B.	BON AND CO	A CONTRACT	Committee Service
Benzo(a)anthracene	100	< 23	230	c 4,700	< 900	2, 96,000	910	130	< 23	820	94	< 23	<3.3	<33	200	900	2,000	8,000
Benzo(a)pyrene	110 T	< 34	180	4,000 9	<1,000	78,000	2770 /	120	< 34	430	110 €	< 34	<3.3	<3.3	30")"	90	8,000	82,000
Henzo(b)fluoranthene	80 "I"	< 46	160	4,600	<1,500	42,000	810	100 "J"	< 46	370	150 "J"	< 46	<3.3	12	19"J"	900	5,000	25,000
Benzo(k)fluoranskene	100 "1"	< 48	180	4,000	< 2,275	58,000	800	120 "J"	< 48	350	110 "5"	< 48	0.33"J"	<3.3	25"J"	9,000	49,000	250,000
Chrysene	100 "1"	< 42	250	3,800	< 1,000	7.94,000	1,100	130 "J"	< 42	1,000	120 "J"	< 42	1.1°J*	3.3	17"J"	88,000	160,000	800,000
Dibenzo(a,h)anthracene	89	< 18	150	2,100	< 2,000	253,000	560	100 🖫	< 18,	290	90	< 18	<3.3	<33	30"J" -	90	2,000	7,600
Indeno(1,2,3-cd)pyrene	88	< 18	160	2300	< 700	58,000	-580	84	< 18.	290	120	< 18	<3.3	<3.3	<66	900	14,000	69,000
NON CARCINOGENIC PN	AL THE WAY	1772	S Sheep	AL 作品	铁环境。	建筑	A 17.4	本書は		"是我们的"	MARK MARK	SER SER	THE WAY	65.7° ~~		题 达尔	"我们是不是	CARLE OF THE
Acenaphshylene	< 24	< 24	< 24	< 120	< 1,025	12,000	190 *J*	42 "J"	- 24	110	< 24	< 24	<3.3	<3.3	<66			
Benzo(g,h,i)perylene	86 "J"	< 29	150	2,200	< 2,000	74,000	560	73 "J"	< 29	300	89 "J"	< 29	<3.3	3.3	10"J"	k -	-	
Phenanterene	301	< 35	1,000	8,900	< 1,175	280,000	2,800	170	< 35	1,400	270	< 35	<3.3	<3.3	430	3 -		

Results timed in ug/tg (purs per billion)

EPA was method 579-86, 6310

**C indicates not descreted a mandel detection limits

**Indicates not descreted a mandel detection limits

**Indicates not able not evaluable

**Indicates notably no detected between limit of detection (LOD) and limit of quantitation (LOQ)

Shaded/Robeled cell indicates concentration detected above most stringent Tier I SRO

(I) Purmant to rule 35 LAC 742-Tiered Approach to Corrective Action Objectives

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TABLE NO. 4 (page 2 of 3) Soll Sample Analytical Results: PNA Compounds 900 W. 18th St. / Chicago, Illinois

¥5					59		*	5	64 10					71 * 73		the feet and the second	modiation Objectives Idential Property Use	
						,,								2000		Route Specific Values	Migration to	Groundwater
ANALYTE	B-18 (8-10)	B-19'	B-19 (3-6)	B-20 (0.3)	B-20	B-2] > (0-3)	H-21	B-22 (0-3)	B 22 (6-9)	B-23	B-23 (6-9)	B-24 (0-3)	B-24 (6-9)	B-25 (0-3)	8-25 (6-9)	Ingestion .	· Class I	Class II
Naphthalene	<3.3	<3.3	14"J"	<3.3	4.5	<1300	<33	<3.3	<82	<3.3	<3.3	<3.3	89	9.7	<3.3	3,100,000	84,000	420,000
Acenaphthene	<3.3	0.53°J°	210	<3.3	1.5"]"	970"3"	- 45	<3.3	8.6"1"	0.37°J*	<3.3	<3.3	38"1"	5.2	9.8	4,700,000	570,000	2,900,000
Anthracene	<3.3	2"1"	310	0.51"1"	9.9	3,000	24"I"	<3.3	2,3"J"	1.3*J"	<3.3	<3.3	37"1"	6.1	⊴.3	23,000,000	12,000,000	59,000,000
Fluoranthene	<3.3	7.9	1,900	5.1	5.9	13,000	81	2.5"J"	2.9"1"	12	43	<3.3	130	38	3.3"3"	3,100,000	4,300,000	21,000,000
Flaorene	<3.3	0.73	330	<3.3	1.3"7"	1,900	<33	<33	17"3"	<3.3	<3.3	<3.3	. 140	16	1.5°3°	3,100,000	560,000	2,800,000
Pyrene	0,27")"	6.7	1,300	4.2	4.1	8,900	86	2.4"J"	<82"	12	<3.3	<3.3	78"J"	35	2.3°J°	2,300,000	4,200,000	21,000,000
CARCINOGENIC PNAMES	24.22.2	2. 海域2.		年 性多数	是是 對地	会は産品門	200	4	**************************************	建新期的	1.c2.5	建发为 性	" "	2007年19	46.379.59		130-10-25-2	200
Benzo(s)anihracene	0.58"J"	14	916"]"	- 2.6"J"	2.2"7"	1 5,700 A	530"J"	1.8"1"	59"J"	7.1	1.9°J"	<3.3	79"I"	22"J"	2.1°J*	900	2,000	8,000
Benzo(a)pyrene	<3.3	5.3	, 570 ×	2.4"J"	1,3"J°	3,400	54	1.7°J"	<82	7.8	1,2"J"	<3.3	23"J"	13	2.2"Г	90	8,000	82,000
Benzo(b)fluorunthene	0.91")"	7.6	550"I"	2.8")"	4.7	44100	87	1.9"I"	<82	8.9	21	<3.3	50"J"	15	58	900	5,000	25,000
Benzo(k)fluoranthene	0.44"J"	4.3	300	1.4"]"	0.85"J"	2,100	16°J"	1.1"J"	2,1,	3.7	<3.3	0.36"1"	22"]"	6.7	1.3"J"	9,000	49,000	250,000
Chrysena	1.1"J"	4.3	1,900	6.2	1.6"J"	9,200	340"1"	3.4	27"]"	13	7.7	0.65"]"	29"J"	38	2.6"J"	88,000	160,000	800,000
Dibenzo(a,h)anthracene	<3.3	0.34"J"	<1,300	1.1"3"	1.2"J"	3100017	52	0.68"J"	<82	9.6	17	0.67°1"	<82	5	8.4	90	2,000	7,600
Indeno(1,2,3-cd)pyrene	<3.3	5.8	360	3.1""	0.68°J°	L900 V	<33	1.4"J"	<82	6.7	<33	<3.3	<82	11	<3.3	900	14,000	69,000
NON-CARCINOGENIC PNAI	* 4.2 m	多点描述。	"种性对你	13 + 5 + 7	建 图(1)程(1	为的的技术	人的细胞	等,沙土	是一种是			(建)	西		of State Pro	电心外间较级	Will William The William	T. William
Acenaphthylene	<3.3	<3.3	15"J"	<3.3	<3.3	<1300	50	<3.3	<82 ;	4.4	<3.3	<3.3	2["]"	3.2"/"	<3.3			
Benzo(g,h,i)perylene	0.33"J"	21	500	2.7"3"	0.94°J°	2,500	<33	2.3"J"	<821	9.3	<3.3	0.31"3"	<82	14	<3.3		-	= 1
Phenanthrene	<3.3	3.4	1400	2.4"3"	3.7	13,000	590"J"	1.4	22"]"	6	<3.3	<3.3	150	41	0.83"J"	A		

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TABLE NO. 4 (page 3 of 3) Soll Sample Analytical Results: PNA Compounds 900 W. 18th St. / Chicago, Illinois

									12					*		5.2	mediation Objectives sidential Property Use	5 5 5
¥				38 138 85				12	180	13						Rouse Specific Values	Migrátion to	Groundwater
ANALYTE	B-27 (0-3)	B-27 (6-8)	B-29 (0-3)	(6-9)	(2-4)	B-31 (4-6)	. B-32 (0-3)	B-32 (9-12)	B-33 (0-3)	(6-9)	B-34 (0-3)	B-34 (9-12)	B-35 (0-3)	B-35 (6-9)	B-36 (6-9)	Ingestion	Class I	Class II
Naphthalene ·	<66	210	0.57"3"	29"1"	4.3"]"	<3.3	<3.3	<3.3	2.6")"	<3.3	31"J"	<3.3	63	43.3	<3.9	3,100,000	84,000	420,000
Acenaphthene	8.8")"	240	0.38"1"	46"J"	16"J"	<3.3	<3.3	<3.3	9	<3.3	140	<3.3	380	<3.3	<3.9	4,700,000	570,000	2,900,000
Anthracene	14"1"	320	0.47°J°	33°J"	50	<33	<3.3	<3.3	22°J•	<3.3	50	<3.3	980	0.41"3"	⊲.9	23,000,000	12,000,000	59,000,000
Fluoranthene	200	1,800	5.3	<66	300	G3	0.83"J"	<3.3	280	3.3	<660	1.1"	5,300	2.7"1"	<39 .	3,100,000	4,300,000	21,000,000
Fluorene	<66	390	0.34"3"	220	6.5"3"	43.3	<3.3	<3.3	4.2"37	<3.3	160	<3.3	320"J"	43.3	<3.9	3,100,000	\$60,000	2,800,000
Pyrene	170	1,300",J"	4.1	<66	280	D.29*J*	1.1"J"	0.27")"	240	<3.3	<660	1.1"]"	5,000	2.5"1"	<3.9	2,300,000	4,200,000	21,000,000
CARCINOGENIC PNATE (2)	200	100	14. fr 50f.	2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A 13 13 1	40.00	A		· 我也	100	100	Set 344	12 m	AM T			C 64 4 3 3 4 4
Benzo(a)anthracene	96	710	3.4"1"	460	220	1.7"J"	1.1"]"	0.61"7"	150	<3.3	760	1.4"]"	42,400	1.8"1"	<3.9	900	2,000	8,000
Benzo(a)pyrene	100	∤∌ 600	3.1"]"	<56	* (230 🔀	43	1.1.	<3.3	9 160	_<3.3	CC 310 20	0.54"J"	\$1,900 T	1.3"J"	<3.9	90	8,000	82,000
Benzo(b)fluoranthene	130	610"1"	4	33°J*	240	0.68	D.98"J"	3.9	210	18	630	67	1,800	3.6	1	900	5,000	25,000
Benzo(k)fluoranthene	49"]"	320	2°J*	7.5"1"	100	0.5"J"	0.64"J"	0.39")"	61	0.29"]*	310	0.9"!"	930	0.86°J"	0.3	9,000	49,000	250,000
Chrysene	160	1,300	4.9"J"	29"J"	390	0.51"J"	1.3"J"	0.91"J"	270	<3.3	1300	1.7"1"	3,700	3.1"J"	0.58	88,000	160,000	800,000
Dibenzo(a,h)anthracene	44"1"	r 230	2.4",	6.8"J"	C1101	<3.3	0.79"J"	5.l.	4 170 A	1"J"	250	<3.3	2700	0.51"J"	<3.9	90	2,000	7,600
Indeno(1,2,3-cd)pyrene	82	440	3.3"]"	<66	140	<13	1.1"J"	<3.3	130	<3.3	290	0.49"J"	≥ 950 €	0.61"3"	<3.9	900	14,000	69,000
NON CARCINOGENIC PNA	147.5	4	ALC: H		hear	100	No.	W. D	学是来,学	和基础	性的別數	を表する	D. Salaria			Market Street		1. N. 11. May 2. 17
Acenaphthylene	<66	3.8"J"	1°J*	<66	_ <33	<3.3	<3.3	<0.3	<33	<3.3	9.6"]"	<3.3	8.5"J"	<3.3	3.9	1 -		-
Benzo(g, h, i)perylene	130	570	6.7	<66	130	<3.3	4	<3.3	170	<3.3	360	3.4	940	1.2"J"	39 .	1 -	-	
Phenanthrene	79	1,700	2.5	200	94	0.4°J"	0.93"J"	43.3	150	<3.3	1300	`<3,3	4,200	1.2"J"	⊲3.9) -		22

Notes:

Results listed in ug/kg (parts per billion)

EPA test anethod SW846, 8310
"<" indicates not described at stated detection limits

"-" indicates not described at state
"-" indicates value not available

"I" indicates majors detected between limit of detection (LOD) and Brits of quantitation (LOQ)

Shuded/Bolded cell Indicates concentration detected above most stringent Tier 1 SRO

(1) Pursuant to rule 35 IAC 742-Tiered Approach to Corrective Action Objectives

RELEASABLE SEP 1 + 2001 REVIEWER MD Soil Sample Analytical Results: BTEX 900 W. 18th St. / Chicago, Illinois

*					660		Tier 1	Soil Remediation (Residential Pr	Objectives (Tier 1 operty Use ⁽¹⁾	SROs)
_				a			Route Spec	ific Values	Soil Component Ingestion Ex	of Groundwater posure Route
ANALYTE	B-13 (3-6)	B-15; (9-12)	B-16 (6-9)	B-34. (9-12)	B-35 (6-9)	B-36.	Ingestion	Inhalation	Class I	Class II
Benzene	< 10	< 10	< 10 `	<5	<5.6	<6	22,000	800	30	170
Toluene	40	25	< 10	<5	<5.6	<6	16,000,000	650,000	12,000	29,000
Ethylbenzene	< 10	< 10	< 10	<5	<5.6	<6	7,800,000	400,000	13,000	19,000
Xylenes (total)	< 30	< 30	< 30	<5	<5.6	<6	160,000,000	410,000	150,000	150,000

Notes:

Results listed in ug/kg (parts per billion)

EPA test method SW846, 8260/5035

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

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[&]quot;<" indicates not detected at stated detection limits

[&]quot;J" indicates analyte detected between limit of detection (LOD) and limit of quantitation (LOQ)

TABLE NO. 6 (page 1 of 2) Soil Sample Analytical Results:RCRA 8 Total Metals Plus Zinc - pH>8 900 W. 18th St./Chicugo, Illinois

	25								1							Resi	(Tier LSROs) lantial Property D	- NSS
							27 (42)								1	Route Spec	fle Values	#H>8.0
ANALYTE	B-3 (6-9)	(9-12)	8-6 (3-6)	(6-9)	H-8 (6-9)	B-9 (6-9)	B-10 (6-9)	B-17' >> (0-3)	B-17 (6-9)	#-18 1 (0-3)	(8-10)	B-19 (1)	(3-6)	B-20 (0-3)	B-21 (0-3)	Ingertion	Inhalation	Background (h.
pΗ	8.1	8.2	11.2	NA	11.0	9.3	10.7	9.6	8.3	9.3	8.8	9.2	9.7	8.7	11			
Arsenic	5,900	5,200	5,300	11,000	1,900 'J'	4,300	18,000	1,220	3,480	1,790	4,370	1,950	7,390	. 1,970	12,100	13,000020	750,000	13,000
Barlum	14,000	37,000	000,88	36,000	14,000	44,000	59,000	1,730	37,600	2,000	81,700	5,120	62,600	4,220	167,000	5,500,000	690,000,000	110,000
Cadmtum	< 1,200	< 1,200	2.100 JUL	< 1,200	<1,200	< 1,200	4,400	<500	<500	<500	<500	<500	- 15748 PER	<500	/1,590	78,000	1,800,000	600
Chromium	6,800	9,200	6,600	7,200	2,600	15,000	13,000	<1000	9,300	<1000	4,380	<1000	10,600	<1900	6,330	390,000	270,000	16,200
Lead	< 6,000	< 6,000	1,610,900	×53,000	142,000	940,000	3,250,006	1,060	9,240	4,160	442,000	86,300	, 74,030,000	27,300	3,070,040	400,000	-	36,000
Mercury	< 30	< 30	799/319 D	51 134	191	209	839	<33	<33	<33	1,540	J. 108	2 608 LP	<33	1,240	23,000	10,000	60
Selenium	< 2,500	< 2,500	< 2,500	< 2,500	< 2,500	< 2,500	< 2,500	<500 .	790	<500	686	<500	536 v	<500	1810 m/s	390,000	-	480
Silver	< 3,000	<3,000	< 3,000	< 3,000	<15,000	< 3,000	< 3,000	<1000	<1000	<1000	<1000	<1000	138023g	<1000	1,090	390,000	-	550
Zinc	156,000	39,000	1,355,000	28,000	32,000	44,000	376,000	-0.5		-	-			-	-	23,000,000	1	95,800

Notes

Results Ested in ug/kg (parts per billion)

"<" indicates not detected at stated detection limits

"..." facticates not analyzed or value not available
"I" indicates analyze detected between Burk of detection (LOO) and littit of quantitation (LOO)

Shaded/Belded cell Indicates concentration detected above most stringent Ter 2 St

(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Of

(3) No pH-specific values are available for this compound or pH level, therefore the background constraints as identified in 35 IAC 742. According A. Table G is used for comparison.

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TABLE NO. 6 (page 2 of 2) Soil Sample Analytical Results: RCRA 8 Total Metals Plus Zinc - pH>8 900 W. 18th St. / Chicago, Illinois

		355		41					1						Resi	(Tier SROs)	
			(5)									(8)		10	Route Spec	ific Values	pH > 8.0
ANALYTE	B-21 (6-9)	B-22 (0-3)	B-23	B-23 (6-9)	B-24 (0-3)	B-24 (6-9)	B-25 (0-3)	B-27 (0-3)	(646) X	B-29 (0-3)	B-29 (6-9)	B-32 (9-12)+ ((0.3)	B-34	Ingention	fehaletion	Background *
ρΗ	8.3	8.8	8.6	8.2	8.8	11	12.0	11.0	11.0	12.0	8.6	8.2	8.2	8.2			
Arsenic	. 4,620	1,430	1,900	3,150	1,760	2,160	1,140	1,700	1,980	1,870	4,900	5,450	5,520	10,600	13,00000	750,000	13,000
Barium	14,100	2,730	2,260	13,900	1,980	16,000	7,210	13,400	18,000	5,200	14,000	35,600	21,300	175,000	5,500,000	690,000,000	110,000
Cadmium	<500	<500	<500	<500	<500	<500	<500	<500	₹300	<500	<500	<500	<500	20,72,050	78,000	1,800,000	600
Chromium	3,720	<1000	<1000	5,310	<1000	2,760	3,000	3,120	5,070	2,610	5,600	12,100	5,000	10,400	390,000	270,000	16,200
Lead	318,000	803	9,630	8,350	4,360	77,000	105,000	46 600	506,000	21,900	8,090	40,600	2,260,800	11,180,000	400,000	_	36,000
Mercury	761	36	613	<33	<33	33	89	45.6	4,1752	1106	<33	<33	294	798	23,000	10,000	60
Selentum	<500	<500	<500	<500	<500	<500	<500	<500	<000	<500	<500	<500	<500	<500	390,000		480
Silver	<1000	<1000	<1000	<1000	<1000	<1000	<1,000	<1,000	<1,000	<1,000	<1,000	·<1,000	<1,000	<1,000	390,000	-	550
Zinc	-		-	-		-	-	_		-		-	-	-	23,000,000	· :=	95,000

Note

Results listed in ug/kg (parts per billion)

< indicates not detected at stated detection limits

"-" indicates not enalyzed or value not available
"I" indicates analyze detected between limit of detection (LCD) and limit of quantitation (LCQ)

Shaded/Boided cell Indicates concentration detected above most stringent Tier 1 SRO

(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Of

(3) No pH-specific values the available for this compound or pH level, therefore the background

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TABLE NO. 7 (page 1 of 2) Soil Sample Analytical Results: RCRA 8 Total Metals Plus Zinc - pH<8 900 W. 18th St. / Chicago, Illinois

				Tier 1 So		Objectives (Tier roperty Use ⁽¹⁾	1 SROs)	
			Route Spec	ific Values 🥍	, , , , , pH = 6.9	9 to 7.24	pH = 7.7	5 to 8.0
ANALYTE	B-I (0-3)	* B-13 (3-6)*	Ingestion	Inhalation	Class I	Class II	Class I	Class II
рH	7.1	7.6						
Arsenic	1,100 "J"	6,300	13,000 ⁽²⁾	750,000	29,000	120,000	31,000	120,000
Barium	11,000	335,000	5,500,000	690,000,000	1,700,000	1,700,000	2,100,000	2,100,000
Cadmium	< 1,200	< 1,200	78,000	1,800,000	11,000	110,000	430,000	4,300,000
Chromium	3,400	7,300	390,000	270,000	36,000		28,000	
Lead	298,000	368,000	400,000		36,000(3)	36,000 ⁽³⁾	36,000 ⁽³⁾	36,000 ⁽³⁾
Mercury	< 30	3,362	. 23,000	10,000	3,300	. 16,000	8,000	40,000
Selenium	< 2,500	< 2,500	390,000	1	4,500	4,500	2,400	2,400
Silver	< 9,000	< 3,000	390,000	5 	13,000		110,000	
Zinc	29,000	NA	23,000,000	9-22	7,500,000	15,000,000	53,000,000	110,000,000

Notes:

Results listed in ug/kg (parts per billion)

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

- (1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives
- (2) Background concentration identified in Appendix A, Table G
- (3) No pH-specific values are available for this compound, therefore the background concentration as identified in 35 IAC 742, Appendix A, Table G is used for comparison

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

[&]quot;I" indicates analyte detected between limit of detection (LOD) and limit of quantitation (LOQ)

TABLE NO. 7 (page 2 of 2) Soil Sample Analytical Results: RCRA 8 Total Metals - pH<8 900 W. 18th St. / Chicago, Illinois

₂			8	Tier I:	Soil Remediation (Residential Pr	Objectives (Tier l operty Use (1)	SROs)
1001	2			Route Spec	ific Values	<i>pH</i> = 7.	75 to 8.0
ANALYTE	B-32 (0-3)	B-33 (6-9)	B-35 (0-3)	*Ingestion	Inhalation	Class I	Class II
рH	8.0	7.7	8.0				
Arsenic	2,690	6,450	10,700	13,000(2)	750,000	31,000	120,000
Barium	14,200	11,700	172,000	5,500,000	690,000,000	2,100,000	2,100,000
Cadmium	<500	<500	2,310	78,000	1,800,000	430,000	4,300,000
Chromium	2,750	7,380	10,100	390,000	270,000	28,000	
Lead	756,000	6,920	1,260,000	400,000		36,000(3)	36,000 ⁽³⁾
Mercury	234	<33	1,040	23,000	10,000	8,000	40,000
Selenium	<500	<500	998	390,000	-	2,400	2,400
Silver	<1,000	<1,000	<1,000	390,000	_	110,000	

Notes:

Results listed in ug/kg (parts per billion)

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

- (1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives
- (2) Background concentration identified in Appendix A, Table G
- (3) No pH-specific values are available for this compound or pH level, therefore the background concentration as identified in 35 IAC 742, Appendix A, Table G is used for comparison

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

TABLE NO. 8 Soil Sample Analytical Results: Priority Pollutant Total Metals plus Cyanide - pH>8 900 W. 18th St. / Chicago, Illinois

	£					ioil Remediation Obj (Tier I SROs) idential Property Use	
Day play wide, and por order.	Lucina de La Lucidada de	fyridigainnoissa valve yr position	Landyley, and Company and	Who shi to R I gold Market	Route Spec	ific Yalues	>> pH > 8.0
ANALYTE	B-2 (2-4)	B-5 (6-9)	B-11 (6-9)	B-12 (3-6)	Ingestion	Inhalation	Background ⁽³⁾
рH	8.4	10.4	8.6	8.1		O.	
Arsenic	2,900	6,800	3,800	3,700	13,000 ⁽²⁾	750,000	13,000
Barium	60,000	36,000	22,000	19,000	5,500,000	690,000,000	110,000
Beryllium	< 120	320 "J"	< 120	< 120	100	1,300,000	590
Cadmium	< 1,200	< 1,200	< 1,200	13,000 %,	78,000	1,800,000	600
Chromium	7,000	15,000	6,100	6,000	390,000	270,000	16,200
Cobalt	11,000	12,000	4,700 "J"	4,500 "J"	4,700,000	-	8,900
Copper	5,300	20,000	8,500	29,000	2,900,000		19,600
Cyanide	< 24	< 26	49 "J"	24 "J"	1,600,000		510
Lead	-4 83,000	53,000	1,180,000	789,000 🐃	400,000		36,000
Mercury	109	680	514	1,510	23,000	10,000	60 ,
Nickel	4,900	19,000	6,700	6,700	1,600,000	13,000,000	18,000
Selenium	< 2,500	< 2,500	< 2,500	< 2,500	390,000		480
Silver	< 3,000	< 3,000	< 3,000	< 3,000	390,000		550
Zinc	17,000	82,000	43,000	7,320,000	23,000,000		95,000

Notes:

Results listed in ug/kg (parts per billion)

NA indicates not analyzed

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

- (1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives
- (2) Background concentration identified in Appendix A, Table G
- (3) No pH-specific values are available for this compound or pH level, therefore the background concentration as identified in 35 IAC 742, Appendix A, Table G is used for comparison

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

[&]quot;J" indicates analyte detected between limit of detection (LOD) and limit of quantitation (LOQ)

TABLE NO. 9 Soil Sample Analytical Results: SPLP Metals 900 W. 18th St. / Chicago, Illinois

		* *		,	V	Tier I Remediation (v C.
ANALYTE	B-17 (6-9)	B-18 (8-10)	B-19. (3-6)	B-21 (0-3)	B:34 (0-3)	Class I	Class II
SPLP Barium			-	138	118	2,000	2,000
SPLPCadmium			D	<3	<3	5	50
SPLP Lead	-	1	848	17.7	9 	7.5	100
SPLP Mercury		<0.2	-	<0.2	1	2	10
SPLP Selenium	<5		-	<5 _. .		50	50
SPLP Silver			ర	<5		50	

Notes:

Results listed in ug/L (parts per billion)
"<" indicates not detected at stated detection limits

[&]quot;--" indicates not analyzed or value not available

NA indicates not analyzed
(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 16 Soil Sample Analytical Results: Total, SPLP & TCLP Lead 900 W. 18th St. / Chicago, Illinois

ANALYTE	B-6 (3-6)	B-16 (6-9)	B-17 (6-3)	B-18 (8-10)	B-19 (0-3)	B-19 (3-6)	3 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	9 p.47	8-47 (3-6)	B.47 (6-9)	0-0	B-49 (3-6)	BESS (0-3)	B-50	8-50 (6-7)	B-51 (0-3)	Tier I Soil Remodiation Objective
Total Lead	1,610,000	3,250,000	4,160	of,442,000° 2	85,300	4,638,000	1,770,000		23,249,000	_	- '	12 00 - 0	_	-	-	-	400,000
SPLP Lead		_	-	l. –		848	-	-	-	•	-	-	-	-	-	-	100
TCLP Lead	136	· d				12,000	59,000	89	31,600	<100	<100 '	103	<100	_<50	<50	105	5,000

NA STE	3.5 (3-5)			19.5 A		9.3	0.00	(65) (65)	127		100		4			100	DET I CONTROL DE LA CONTROL DE
Total Lead	-	-	-	15.50	-	-		-	-	-	-	-	-		-	-	400,000
SPLP Lead					-	2	<u>~</u>		-	-		~		-1	-		100
TCLP Load	9,870	<100	167,000	<100 ·	<100	2,240	10,600	<100	13,000	<100	278	3,430	31,300 M	3,780	653	16,600	5,000

Results listed in ug/Kg or ug/L (puts per billion)
"<" indicates not detected at stoned detection limits
"--" indicates not analyzed

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TABLE NO. 11 Soil Sample Analytical Results: Carbazole 900 W. 18th St. / Chicago, Illinois

Tier 1 Soil Remediation Objectives (Tier 1 SROs)
Residential Property Use (1) Route Specific Values Migration to Groundwater

ANALYTE	B-34 B-35 B-3 (0-3) (0-3) (3-6		B-40 (6-9)	B-41 (3-6)	B-4] (6-9)	B-42 (3-6)	B-42 (6-9)	B-43 (0-3)	B-43 (3-6)	B-44 (6-9)	(B-45)	B-52 (0-3)	B-53 (0-3)	B-54 (0-3)	B-55 (0-3)	Ingestion	Inhalation	Class 1	Class II
Carbazole	1,000 12,000 <33	0 <330	<330	<330	<330	49"J"	<330	<330	310"J"	<330	<330	2,200	<330	580	720	32,000		600	2,800

Notes:

Results listed in ug/kg (parts per billion)

EPA test method SW846, 8270

"<" indicates not detected at stated detection limits

"--" indicates value not available

"J" indicates analyte detected between limit of detection (LOD) and limit of quantitation (LOQ)
Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO
(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 12 Groundwater Sample Analytical Results: VOCs 900 W. 18th St. / Chicago, Illinois

			e in the second			1	emediation Objectives GROs) (1)
ANALYTE	MW-I	MW-2	MW-3	Duplicate	EQ	Class I	Class II
2-Butanone (MEK)	<20	<20	<20	<20	<20		
2-Hexanone	<10	<10	<10	<10	<10		
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10		
1.1-Dichloroethane	<5	<5	<5	<5	<5	700	3,500
I,1-Dichloroethene	<5	<5	<5	<5	<5	7	35
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	ර	0.2	0.2
1,2-Dibromoethane	<5	<5	<5	<5	<5	0.05	0.5 .
1,2-Dichloroethane	<5	<5	<5	<5	<5	5	25
1,2-Dichloropropane	<5	<5	<5	<5	<5	5	25
1,3-Dichloropropene (total)	<10	<10	<10	<10	<10	i	5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	200	1,000
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	5	50
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<u> </u>	-
Acetone	<100	<100	<100	<100	<100	700	700
Benzene	<5	<5	<5	<5	<5	5	25
Bromodichloromethane	<5	<5	<5	<5	<5	0.02	0.02
Bromoform	<5	<5	<5	<5	<5	0.2	0.2
Bromomethane	<10	<10	<10	<10	<10	9.8	49
n-Butanol	<500	<500	<500	<500	<500	700	700
Carbon Disulfide	<5	220	<5	<5 .	<5	700	3,500
Carbon Tetrachloride	<5	<5	<5	<5	<5	5	25
Chlorobenzene	ර	্ব	ব	<5	<5	100	500
Chlorodibromomethane	<5	<5	<5	<5	<5	140	140
Chloroethane	<10	<10	<10	<10	<10	-	
Chloroform	<5	<5	<5	<5	ර	0.02	0.1
Chloromethane	<10	<10	<10	<10	<10		
cis-1,2-Dichloroethene	. <5	<5	<5	<5	<5	70	200
Ethylbenzene	<5	<5	ර	<5	<5	700	1,000
Methylene Chloride	<5	<5	⋖	<5	<5	5	50
Styrene	<5	<5	<5	<5	<5	100	500
Tetrachloroethene	<5	<5	<5	<5	<5	5	25
Toluene	<5	<5	<5	<5	<5	1,000	2,500
trans-1,2-Dichloroethene	<5	<5	ර	<5	ঠ	100	500
Trichloroethene	<5	<5	ර	<5	<5	5	25
Vinyl Acetate	<10	<10	<10	<10	<10	7,000	7,000
Vinyl Chloride	<10	<10	<10	<10	<10	2	10
Total Xylenes	<5	<5	<5	<5	<5	10,000	10,000

Notes:

Results in ug/L (parts per billion)

EPA test method SW846, 8260

[&]quot;<" indicates not detected at stated detection limits

^{*--&}quot; indicates value not available

⁽¹⁾ Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 13 Groundwater Sample Analytical Results: Acid Extractable Compounds 900 W. 18th St. / Chicago, Illinois

						Ċ	Tier I Groun Remediation O (Tier I GRO	bjectives
ANALYTE	MW-1	MW-2	MW-3	MW-4	Duplicate	EQ.	Class I	Class II
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10	700	3,500
2,4,6-Trichlorophenol	ರ	ব	ব	<5	ৰ্ব	ব	6.4	32
2,4-Dichlorophenol	<u>්</u>	<5	্ব	ৰ্ব	ರ	<5	21	21
2,4-Dimethylphenol	ర	<5	⋖	ర	ర	ర	140	140 '
2,4-Dinitrophenol	<25	<25	_ <25	⊘ 5	<25	<25	14	14
2-Chlorophenol	ৰ্ব	ර	ර	ব	_ ర	ব	35	175
2-Methyl-4,6-dinitrophenol	<25	<25	<25	<25	<25	<25	<u>-</u>	
2-Methylphenol (o-Cresol)	ব	ব	ৰ্ব	ර	٥_	<5	350	350
2-Nitrophenol	ರ	ধ	<5	ব	ব	<5		-
4-Chloro-3-methylphenol	ব	<5	ধ	ৰ্ব	ర	<5		
4-Methylphenol (p-Cresol)	- భ	ব	ర	⋖	ర	<5	350	350
4-Nitrophenol	<25	<25	<25	<25	⊘ 5	<25		
Benzoic Acid	<25	<25	<25	38	<25	<25	28,000	28,000
Pentachlorophenol	<25	<25	<25	<25	<25	<25	1.0	5.0
Phenol	ব	ব	<5	10	ঠ	<5	100	100

Notes:

Results in ppb (parts per billion)

EPA Test Method SW846, 8270

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

⁽¹⁾ Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 14 Groundwater Sample Analytical Results: Base/Neutral Extractable Compounds 900 W. 18th St. / Chicago, Illinois

	<u> 1888</u>						Remediatio	oundwater n Objectives GROs) ⁽¹⁾
ANALYTE .	MW-1	MW-2	MW-3	MW-4	Duplicate	EQ	Class I	Class II
1,2,4-Trichlorobenzene	ර	<5	ব	< <	<5	ර	70	700
1,2-Dichlorobenzene	ব	ব	<5	<5	ব্য	Ø	600	1500
1,3-Dichlorobenzene	ব	<5	<5	<5	<5	ර	-	T -
1,4-Dichlorobenzene	ර	ර	ර	্ব	< ప	ద	75	375
2,4-Dinitrotoluene	<5	4	ব	- 45	ৰ্ব	ර	0.02	0.02
2,6-Dinitrotoluene	ර	- 5	ব	ರ.	ব	ර	0.1	0.1
2-Chloronaphthalene	ঠ	ර	ব	ধ	< 5	ර		
2-Methylnaphthalene	ර	<5	ব	38	ব	ర		-
2-Nitroaniline	<25	<25	<25	<25	<25	<25	=	-
3,3'-Dichlorobenzidine	<10	<10	<10	<10	<10	<10	20	100
3-Nitroaniline	<25	<25	<25	<25	<25	2 5		-
4-Bromophenylphenylether	ঠ	ح ح	ব	<5	.<5	ර	-	
1-Chloroaniline	ර	ර	ব	ৰ্	ব	c5	28	28
4-Chlorophenylphenylether	ৰ্ব	<5	<5	<5	<5	ර	-	-
4-Nitroaniline	2 5	425	<25	<25	<25	<25	-	-
Bis(2-chloroethoxy)methane	ර	<5	<5	<5	ব	ර		-
Bis(2-chloroethyl)ether	ব	ৰ্ব	ব	্ব	ব	ර	10	10
Bis(2-ethylhexyl)phthalate	ব	4 5	্ব	<5	<5	ර	6.0	60
Butylbenzylphthalate	ব	ර	ব	ರ	<5	ර	1,400	7,000
Carbazole	<5	<5	ব	<5	<5	ర		-
Di-n-butyl phthalate	ර	ර	ব	ර	<5	ح ح		
Di-n-octyl phthalate	ර	ব	ර	ব	<5	ර	140	700
Dibenzofuran	45	ব	<5	Ø	<5	ර	-	
Diethyl phthalate	ರ	ර	ব	_ <	ব	ර	5,600	5,600
Dimethyl phthalate	<5	_<5	_<5	<5	<5	త	**	-
Hexachlorobenzene	45	ব	ব	্ব	<5	-5	0.06	0.3
Hexachlorobutadiene	ర	4	ব	ব	<5	ර		-
Hexachlorocyclopeniadiene	ح5	ර	ব	< 5	<5	4	50	500
Hexachloroethane	45	ব	ব	ধ	<5	ර	7.0	35
Isophorone	ح ح	4 5	ঠ	ර	ব	ර	1,400	1,400
V-Nitroso-di-n-propylamine	ర	<5	<5	<5	<5	ৰ্ব	10	10
V-Nitrosodiphenylamine	ద	45	<	త	ర	6	10	50
Vitrobenzene	5	ර	ঠ	ব	ර	ర	3.5	3.5

Notes:

Results in ppb (parts per billion) EPA Test Method SW846, 8270

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

⁽¹⁾ Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 15 Groundwater Sample Analytical Results: PNAs 900 W. 18th St. / Chicago, Illinois

							Tier 1 Groundwater Objectives (Tier	W. 150
ANALYTE	MW-1	MW-2	MW-3	MW-4	Duplicate	EQ	Class I	Class II
Naphthalene	<0.1	<0.1	<0.1	8.1	<0.1	<0.1	25	39
Acenaphthene	<0.1	0.12	<0.1	0.68	<0.1	<0.1	420	2,100
Anthracene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2,100	10,500
Fluoranthene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	280	1,400
Fluorene	<0.1	<0.1	<0.1	2.6	<0.1	<0.1	280	1,400
Pyrene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	210	1,050
CARCINOGENIC PNAS	1.00	*	J. J	Land of the second		$(\hat{\mathcal{A}}_{\chi}),(\hat{\gamma}_{\chi})$		
Benzo(a)anthracene	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	0.13	0.65
Benzo(a)pyrene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	2.0
Benzo(b)fluoranthene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.18	0.9
Benzo(k)fluoranthene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.17	0.85
Chrysene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.5	7.5
Dibenzo(a,h)anthracene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	1.5
Indeno(1,2,3-cd)pyrene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.43	2.15
NON-CARCINOGENIC PN.	As:	\$\dagger{\pi}\dagger\da		15 20V 0	A & 919 (S.).			. *
Acenaphthylene	<0.1	<0.1	0.23	0.89	<0.1	<0.1	-	
Benzo(g,h,i)perylene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1820	
Phenanthrene	<0.1	<0.1	<0.1	<2	<0.1	<0.1		1

Notes:

Results in ug/L (parts per billion) EPA test method SW846, 8310

Shaded/Bolded cell indicates concentration detected above most stringent Tier i GRO

[&]quot;<" indicates not detected at stated detection limits

[&]quot;--" indicates value not available

⁽¹⁾ Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

TABLE NO. 16 Groundwater Sample Analytical Results: Priority Pollutant Total Metals 900 W. 18th St. / Chicago, Illinois

									7	water Remediation Tier I GROs) (1)
ANALYTE	MW-I	MW-2	MW-2	MW-3	MW-4	MW-4	Duplicate	.EQ	Class I	Class II
Date	3/15/01	3/15/01	4/12/01	3/15/01	3/15/01	4/12/01	3/15/01	3/15/01	77	
Antimony	9.46	21.7 %.		21.8	10.4	-	11	<5	6	24
Arsenic	13.7	8.97		17.8	6.37		10.5	ধ	50	200
Beryllium	<3	<3		<3	<3	122	<3	<3	4	500
Cadmium	<5	<5		<5	<5		<5	<5	5	50
Chromium	<10	<10		<10	<10		<10	<10	100	1,000
Copper	. <10	<10		<10	29.8		11.7	<10	650	650
Lead	<5	° 117	36.3	60.8	238	301	7.45	ර	7.5	100
Mercury	<0.2	<0.2		<0.2	<0.2	-	<0.2	<0.2	2	10
Nickel	34.8	72.3		<20	<20		35.4	<20	100	2,000
Selenium	<5	<5		<5	<5		<5	<5	50	50
Silver	<10	<10		<10	<10		<10	<10	50	
Thallium	5.01	ৰ্ব	199	<5	÷ 5,17		5.94	<5	2	20
Zinc	201	705	-	22.6	3,680	-	95.9	<20	5,000	10,000

Notes:

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 GRO

(1) Pursuant to 35 IAC 742-Tiered Approach to Corrective Action Objectives

Results in ug/L (parts per billion)
"<" indicates not detected at stated detection limits

[&]quot;--" indicates not analyzed or value not available

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APPENDIX A

USGS/ISGS MAPS

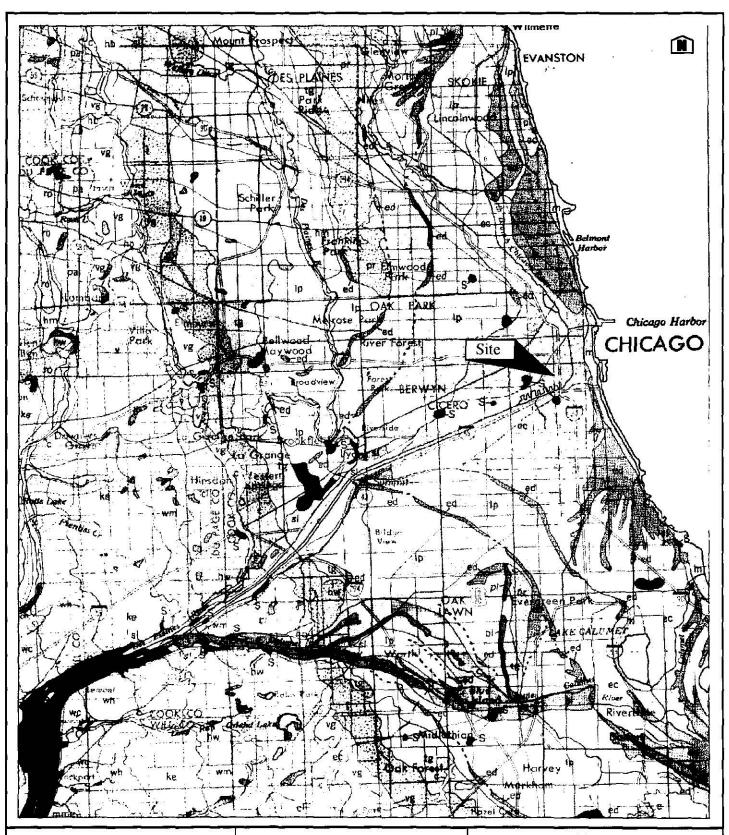
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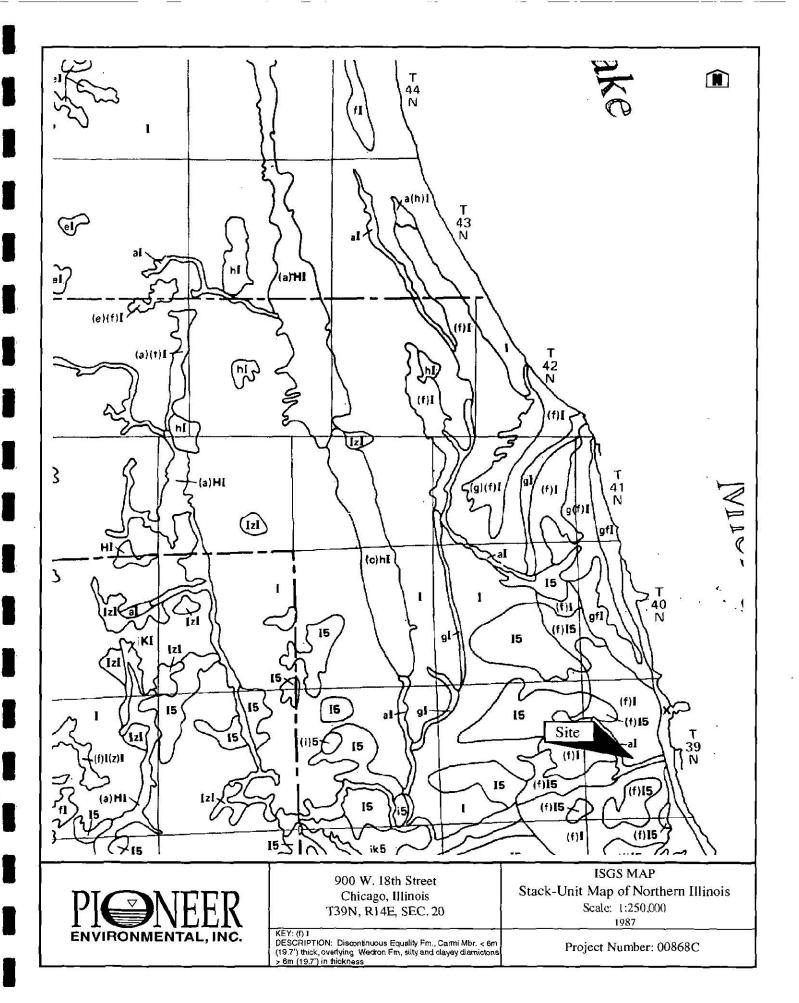


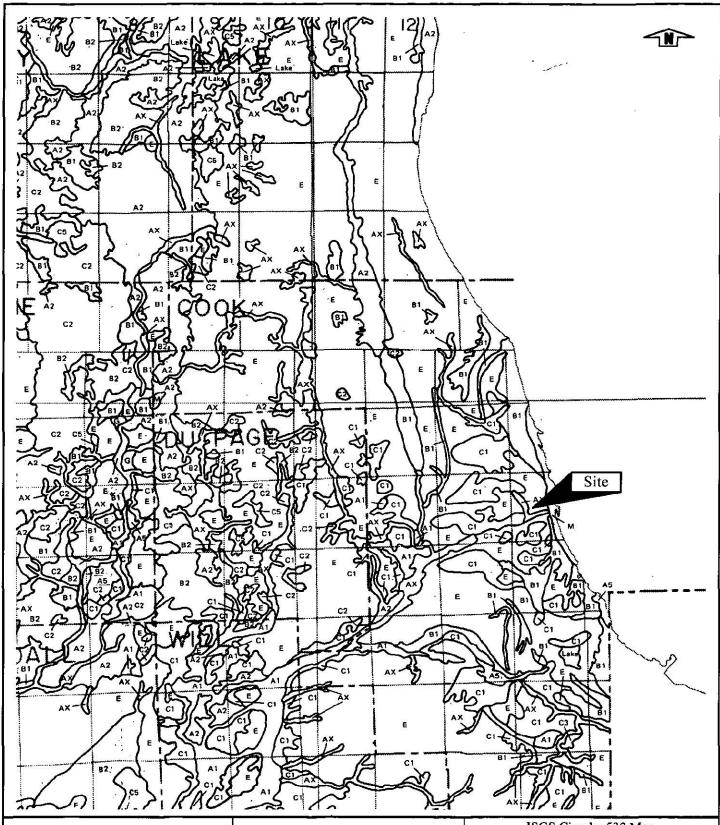
900 W. 18th Street Chicago, Illinois T.39N, R.14E., SEC. 20

KEY: ec = Carmi Member of Equality Formation
DESCRIPTION: Largely quiet-water lake sediments; dominantly
well-bedded silt, locally laminated and containing thin beds of clay.

ISGS MAP Surficial Geology of the Chicago Region Scale 1:250,000 1970

Project Number: 00868C







900 W. 18th Street Chicago, Illinois T39N, R14E, SEC. 20

KEY: E DESCRIPTION: Uniform, relatively impermeable sifty, clayey till at least 50 ft thick; no evidence of interbedded sand/gravel. ISGS Circular 532 Map
Potential for Contamination of Shallow Aquifers
Scale: 1:500,000
1984

Project Number: 00868C

APPENDIX B

DRM-1 FORM, DRM-2 FORM & SITE BASE MAP

Illinois Environmental Protection Agency Bureau of Land Remedial Project Management Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

FOR ILLINOIS	EPA	USE:
Log No		

\$500 Advance Partial Payment Included
DRM-2 SRP Form Included
DRM-3 Request for Assessment Included
DRM-4 Tax Credit Budget Plan Included

Site Remediation Program Application and Services Agreement (DRM-1) Form

I. Site Identification:

Site Name: 900 West 18th Street

Street Address: 900 West 18th Street	
City: Chicago	ZIP Code;
County: Cook	Approximate Size of Site (Acres): 4.7
Illinois Inventory I. D. Number:	U.S. EPA I.D. Number :
Site Base Map Attached 🗾 Illinois EPA Permit(s):	· · · · · · · · · · · · · · · · · · ·
LUST/IEMA Incident Number(s), if applicable:	
II. Remediation Applicant ("RA"):	
RA's Name: David Henriksen	Title: Course 1 to Retirement Pragram
Company: The Retirement Program of Farley, In	
Street Address: 233 South Wacker Drive, Suite 215	
City: Chicago	State: IL ZIP Code: 60606
Phone: 312.993.1705 FEIN or SSN: _	<u> </u>
eligibility criteria set forth in Section 58.1(a)(2) of the Environmulgated thereunder and that this submittal and all attached EPA's agreement to provide (subject to applicable law, available evaluation services for activities carried out pursuant to Title agree to:	nd services agreement. I certify that the proposed project meets the onmental Protection Act (415 ILCS 5/58.1(a)(2)) and regulations ments were prepared at my direction. In consideration for the Illinois able resources, and receipt of the advance partial payment) review and 17 of the Illinois Environmental Protection Act (415 ILCS 5/58-58.12), I bis Environmental Protection Act (415 ILCS 5/58 - 58.12) and
implementing regulations; (2) Allow for or otherwise arrange site visits or other sit	te evaluations by the Illinois EPA when requested:
(3) To pay any reasonable costs incurred and document	
	A for such anticipated services provided in Section V of this application.
As the Remediation Applicant, I understand that I may termin writing that services previously requested under the services notice, the Illinois EPA shall provide me with a final invoice	nate this services agreement at any time, by notifying the Illinois EPA in agreement are no longer wanted. Within 180 days after receipt of the for services provided until the date of receipt of such notification. utachments are true, accurate and complete. I hereby certify that I have
the authority to enter into this agreement. RA's Signature:	Date: 8-27-01
*In addition to the fees applicable under this Services Ago	reement, the recipient of a No Further Remediation Letter must pay in the amount of the lesser of \$2500 or an amount equal to the costs

IL 532 2546 LPC 565 Feb-2000

III. Project Objectives:

A.	Release Letter Requested.	Comprehensive No Further Remediation (("NFR") Letter
¥	Please complete one of the subsections by checking applicable boxes and including other information (if necessary, additional information may be attached to this application form):	Focused NFR Letter Identify the focused contaminants of concern by Volatiles BTEX Semivolatiles PNAs Other (identify):	y checking the applicable box(es): PCBs Metals Pesticides
		4(y) Letter Identify the focused contaminants of concern by Volatiles	PCBs Metals Pesticides licable boxes: Other:
B.	Identify any support services being sought from the Illinois EPA in addition to the review and evaluation services (if necessary, additional information may be attached to this application form):	No additional support services are Assistance with community relation Environmental Remediation Tax Capplication) Sample collection and analyses Other (identify):	
C.	Anticipated Schedule	SRP Document	Projected Date of Receipt by Illinois EPA
	e	Site Investigation Report	8-30-2001
		Remediation Objectives Report	8-30-2001
	,,,	Remedial Action Plan	0-2001
	•	Remedial Action Completion report	2-2002
D.	Identify the current and post- remediation uses of the remediation site (if necessary, additional information may be attached to this application form):	Current Use: Industrial Post-Remediation Use: Residential	
		20 com	9

IV. Written Permission from the Property Owner (check one of the applicable boxes and provide additional information):

RA is the property own	er of the remediation site identified in Section I of this	application.
RA is not the property of	wner of the remediation site identified in Section I of t	this application.
City:	State:ZIP Code:	Phone:
Owner's Signature:	nises for the purpose of conducting remedial investigat	Date:
V. Advance Partial		
1122	shall select one of the following advance partial paym	
Plan 1: A \$500 advan Illinois". Please inch check; or	ce partial payment is included with this application. Plade "For Deposit in the Hazardous Waste Fund" and the	lease make the check payable to: "Treasurer, State of e Remediation Applicant's FEIN or SSN on the
anticipated costs of the Partial Payment for A	ne Illinois EPA determine the appropriate partial nayme Illinois EPA, not to exceed \$5,000). A completed Description in the property of the services of the services requested.	RM-3 form ("Request for Assessment of Advance
but increases the risk of forf	refund payments without a legislative appropriation. Petting the payment if the applicant is ineligible. Payment determination is made on the application, but it reduces	ent under Plan 2 may result in a larger advance

L If this application contains plans and reports for review and evaluation by the Illinois EPA, a completed Form DRM-2 must also accompany this submittal.

The Illinois EPA is authorized to require this information under Section 415 ILCS 5/58-58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your application being rejected. This form has been approved by the Forms Management Center. All information submitted as part of this Application is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade servet or secret process in the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines.

Illinois Environmental Protection Agency Bureau of Land Remedial Project Management Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

OR ILLINOIS	EPA US	E:		
OG NO				
OG NO			-	

Site Remediation Program Form (DRM-2) (To Be Submitted with all Plans and Reports)

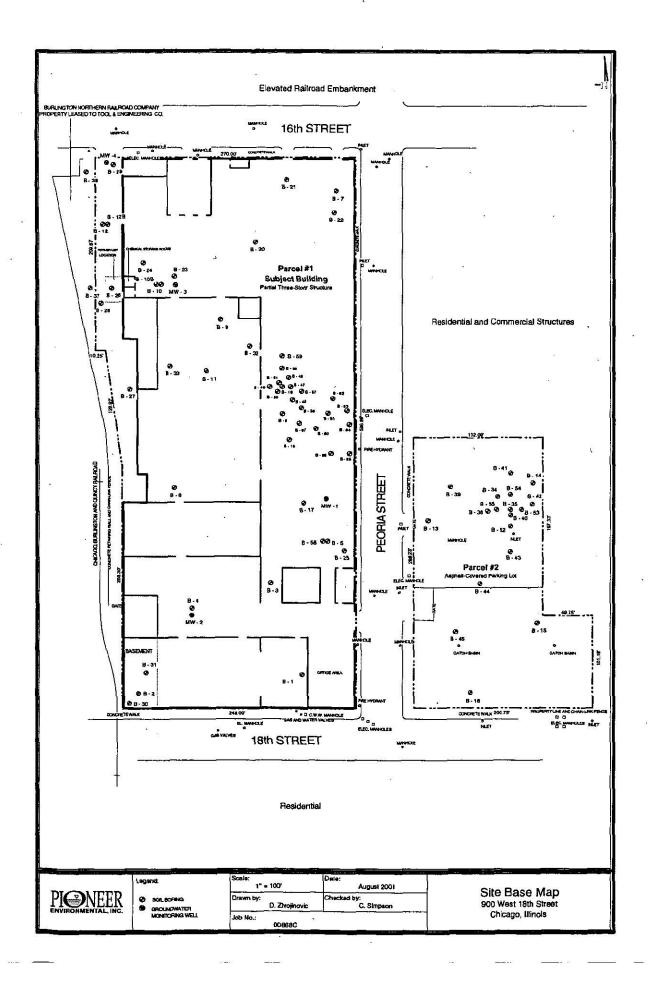
Site Name: 900 West 18th Stree	t		
Street Address: 900 West 18th Str			4
Clity: Chicago	_ Illinois Invent	ory I. D. Number:	
IEMA Incident Number:			
I. Remediation Applicant	ŧ		
Applicant's Name: David Henrik	sen .	Company: The H	Retirement Program of Farley
Street Address: 233 South Wacl			
City: Chicago			Phone: 312.993.1705
	¥		F
Remediation Applicant's Signature:	Daviko	Homekor	Date: 8-27-01
Contact's Name: Charity Simpso	on .	Company: Pione	eer Environmental, Inc.
Street Address: 1000 N. Halsted	Street, Suit	te 202	
			Phone: 312.587.1021
J.,	A STATE OF THE STA		
X .	icensed Pr	ofessional Enginee	r ("RELPE"), if applicable:
V. Review & Evaluation L			r ("RELPE"), if applicable:
V. Review & Evaluation L		Company:	
V. Review & Evaluation L RELPE's Name: Street Address:		Company:	

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

IL 532 2547 LPC 566 Feb-2000

V. Project Documents Being Submitted:

Document Title: SIR-Focused & ROR	Date of Preparation of Plan or Report: 8 27 - 2001
Prepared by: Pioneer Environmental Prep	pared for: The Retirement Prgm of Farley
Type of Document Submitted;	☐ Sampling Plan
Site Investigation Report - Comprehensive	Health and Safety Plan
Site Investigation Report - Focused	Community Relations Plan
☑ Remediation Objectives Report-Tier 1or 2	☐ Risk Assessment
Remediation Objectives Report-Tier 3	Contaminant Fate & Transport Modeling
Remedial Action Plan	☐ Environmental Remediation Tax Credit - Budget Plan Review
Remedial Action Completion Report	Other:
Document Title:	Date of Preparation of Plan or Report:
Prepared by:	Prepared for:
Type of Document Submitted:	☐ Sampling Plan
Site Investigation Report - Comprehensive	5000000
A CONTROL OF THE CONT	Health and Safety Plan
Site Investigation Report - Focused	☐ Community Relations Plan ☐ Risk Assessment
Remediation Objectives Report-Tier 1 or 2	
Remediation Objectives Report-Tier 3	Contaminant Fate & Transport Modeling
	Environmental Remediation Tax Credit - Budget Plan Review
Remedial Action Completion Report	Other:
Document Title:	Date of Preparation of Plan or Report
7 C POTA SOUTE - UND AND SOUTH C 150 NO SOUTH SO	524 L
Prepared by:	Prepared for:
Type of Document Submitted:	☐ Sampling Plan
Site Investigation Report - Comprehensive	☐ Health and Safety Plan
Site Investigation Report - Focused	Community Relations Plan
Remediation Objectives Report-Tier 1or 2	☐ Risk Assessment
Remediation Objectives Report-Tier 3	Contaminant Fate & Transport Modeling
Remedial Action Plan	☐ Environmental Remediation Tax Credit - Budget Plan Review
Remedial Action Completion Report	Other:
VI. Professional Engineer's Seal or Stamp:	
	the subject of this plan(s) or report(s) were performed under my direction, and this
	or reviewed by rne, and to the best of my knowledge and belief, the work described nee with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code
740, and generally accepted engineering practices, and the informa-	
Engineer Name: Charity Simpson, P.E.	•
Company: Pioneer Environmen Phone: 312.587.10	Professional Engineer's Seal or Stamp:
Registration Number: 062-054576	- A. SIA
Signature: (MA)	License Expiration Date: 11-30-01 P. 062-054576 REGISTERED
	EG! REGISTERED 2
1 /	■ : PROFESSIONAL :
5	ENGINEER .
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APPENDIX C

SOIL AND GROUNDWATER SAMPLING PROTOCOLS

inted 06/06/2013 8:21AM by Sharon.Dowson p. 76/1

PROTOCOL FOR SUBSURFACE SOIL SAMPLING

Subsurface samples are collected by employing various soil boring techniques based on certain site specific conditions. Soil borings are performed using a Hollow or Solid Stem (site specific) auger with split-spoon sampling techniques, a hydraulic percussive split-spoon sampler, a percussive Macro-Core® barrel sampler, and/or a stainless steel hand auger. The soil sampling activities are conducted in accordance with American Society of Testing and Materials (ASTM) standards (ASTM:D 1586). Soil samples are collected with a stainless steel hand auger, a split-spoon sampler, and/or a Macro-Core® sampler at 2-3 foot intervals depending on the specific method used. In the split-spoon sampling procedures, a split-barrel sampler having either a 2-inch or 1-3/16 inch outside diameter, an inside diameter of 1-3/8 or 7/8 inches, and a length of 2.5 or 3 feet is driven into the soil to collect a representative and undisturbed sample. In the Macro-Core® barrel sampling technique, a stainless steel barrel having a 2-inch outside diameter, an inside diameter of 1-1/2 inches, and a length of 2 or 3 feet is fitted with a PVC liner and is driven into the soil to collect a representative and undisturbed sample.

The drilling is directed by a Pioneer Environmental Field Project Geologist/Engineer, who logs geologic materials encountered during drilling, field screens auger cuttings and soil samples, observes the drilling activities, and supervises sample collection. Each sample is examined in the field for odor and visual evidence of hydrocarbon or other organic contamination. The field observations are noted in the soil boring logs that are included in the Appendices.

A representative portion of each sample is placed into an unused, air-tight plastic bag which is sealed and dedicated to that discrete sample. The sample is allowed to achieve a constant temperature and the headspace above each sample is screened for volatile organic compounds (VOCs) using either a Photovac MP-1000 handheld air monitor / photoionization detector (PID) or a Photovac IS 3000 handheld air monitor / flame ionization detector (FID), depending on the nature of the targeted contaminants. The PID/FID are devices that are sensitive to a variety of VOCs. The headspace is screened by inserting the PID/FID probe into the space above the soil and recording the maximum reading of the instrument. The results of the headspace screening are also listed on the soil boring logs.

When soil samples will be laboratory tested for VOCs, one of two field sampling methods are used as required by US EPA's SW-846 Method 5035. 1) A representative portion of the sample collected in the field is placed in an EnCore™ sampler, or equivalent, immediately after collection, with the appropriate quantity and volume of the containers determined by the scope of work and field conditions. The EnCore™ samplers, or equivalent, are delivered to the laboratory within 48 hours of sample collection. 2) An appropriate weight of a representative portion of the sample collected in the field is placed in laboratory-provided glassware, immediately after collection, and then the appropriate preservative is added, either sodium bisulfate-for samples with estimated VOC concentrations less than 200 ppb; or methanol-for samples with estimated VOC concentrations greater than 200 ppb.

Any soil samples chosen for analysis are packed in appropriate containers, properly labeled, and shipped in a cooler on ice via a delivery service overnight to an independent laboratory under standard chain-of-custody procedures. Samples are selected based on the scope of work, field observations (i.e. visual/odor observations, elevated PID readings, etc.), other site specific conditions, and the judgment of the Pioneer Field Project Geologist/Engineer.

Drill cuttings and liquids generated are left at the borehole. All boreholes are decommissioned in accordance with applicable Illinois Department of Public Health guidelines. When required, these spoils are contained in 55 gallon Type 17H drums. Decontamination procedures for the drilling equipment consists of steam cleaning the augers after each boring using a biodegradable detergent and high-pressure steam rinse. The split-spoon samplers are decontaminated between each sample interval by washing in a solution of Alconox and water, and triple rinsing with clean heated water.

Any deviations to or modifications of this standard protocol will be described on a site by site basis.

PROTOCOL GROUNDWATER MONITORING WELL INSTALLATION & SAMPLING

Groundwater monitoring wells are typically installed using hollow stem auger borings. When spatial constraints dictate, wells may be installed using manual hand-augering techniques, or other acceptable practices. Soil sampling is conducted during well installation, according to Pioneer's Subsurface Soil Sampling Protocol. The drilling and well installation are directed by Pioneer's Field Project Geologist/Engineer, who logs geologic materials encountered during drilling, field screens auger cuttings and soil samples, observes the drilling activities, and supervises installation of groundwater monitoring wells. All drilling equipment and tools are properly decontaminated (i.e. pressure washing, steam cleaning, etc.) prior to mobilization onto the site, between boreholes, and upon completion of the drilling program.

Wells are constructed of 2 inch I.D. schedule 40 flush-joint PVC riser and screen unless noted otherwise in the report. The well materials are decontaminated prior to installation. When the depth of the well allows, the annular space surrounding the screen is backfilled with silica sand filter pack to a height not less than 1 foot above the top of the well screen, and a minimum of one foot of bentonite pellets or granular bentonite is placed above this backfill, to provide a low permeability seal. The remaining annulus is sealed with a cement/bentonite grout to the ground surface. Well screens are positioned to monitor selected areas of the water column. In high traffic areas, a flushmount protective casing with a locking well cap is generally installed at the surface and secured with concrete. In low traffic areas, a "stickup" locking protective casing is typically installed.

After installation, wells are developed using either a new disposable high-density polyethylene (HDPE) bailer for each well, or a stainless steel submersible pump, by purging approximately 5-10 well volumes of water from each well, until the well water is visually clear of suspended sediments, or until further yield cannot be achieved. Wells are allowed to stabilize prior to sampling, to ensure the collected sample is representative of groundwater at the location. If a stainless steel pump is used during well development, it is decontaminated between wells using a tri-sodium phosphate (TSP) wash and triple water rinse.

Prior to sample collection, the wells are purged by removing a maximum of 3-5 well volumes of water or until further yield cannot be achieved in order to remove all static water from the wells. Purging is accomplished using either a disposable HDPE bailer which is dedicated to the individual well or a stainless steel submersible pump. Sample collection is accomplished using a new disposable HDPE bailer for each well. Groundwater samples are collected, placed in appropriately sized laboratory provided glassware and labeled, identifying sample number, location and date, and sampling personnel. The proper sample preservatives are added to the sampling jars as required. Standard chain-of-custody procedures are followed regarding shipment and receipt of samples.

Quality Assurance/Quality Control (QA/QC) procedures for field sampling techniques are performed on a site-by-site basis per scope of work considerations and contract obligations.

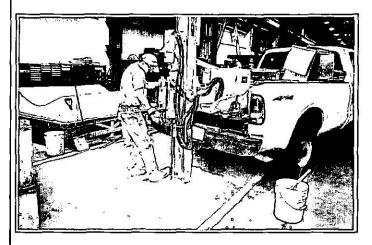
In accordance with Pioneer's Site Safety Plan, a photoionization detector (PID) is used to monitor ambient air concentrations at the sampling locations. Personal protective equipment is utilized by site personnel during performance of sampling activities, as specified in the Site Safety Plan as necessary.

Any deviations to or modifications of this standard protocol will be described on a site-by-site basis.

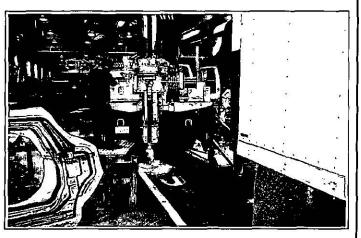
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APPENDIX D

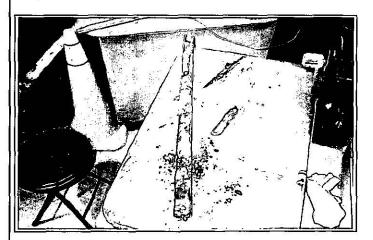
PHOTOGRAPHIC LOG



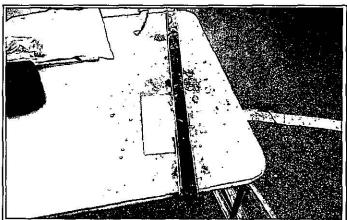
View of typical soil boring being advanced



View of Monitoring Well being drilled



View of typical soil sample (fill)



View of typical soil sample



900 West 18th Street Chicago, Illinois PHOTOGRAPHIC LOG

Project Number: 00868C

APPENDIX E

SOIL BORING LOGS/MONITORING WELL COMPLETION LOGS

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520.00	M			, INC.

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-1

Date Begin: 12/21/2000

Date End:

12/21/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		CONCRETE	
<1	50%			Fill		Crushed limestone FILI Loose, Dry	No visual No odor
		XXXX	_ 3 —		7.02.7.07.2.0	Refusal at 3 feet	
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Comple	ntion Notes					Drill Rig:	SIMCO EarthProbe 200

Completion Notes:	Drill Rig: SIMCO EarthProbe 200
Hatched pattern denotes sample analyzed.	Driller: Predrag Vrhovac
	Geologist: Charity Simpson
	LUST Incident No: NA
Water Depth While Drilling:- Water Depth After Drilling: N	A Project Number: 00868B Page 1

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ENV	IRONME	NTAL, INC.	

Boring No.: B-2

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 12/21/2000

Date End:

12/21/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	1000/			Concrete		CONCRETE	
<1	100%		- . · -	Fill	1. 1. 1. 1. 1. 1	Black cinders and sand	
		KAAAA			1.10/1.10/07	Loose, Moist	No visual No odor
				Fill	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Gray crushed limestone FILL	No odor
46	100%	\bowtie	- 3 -	1 111	1.7.7.7.7.	Loose, Wet	
		$\times\!\!\times\!\!\times$	_		1. 7. 7. 7. 9. 6. 7. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	3.	
						Boring terminated at 4 feet	
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Drill Rig: Hand Geoprobe Completion Notes: Hatched pattern denotes sample analyzed. Driller: J. Mizwicki Boring located in basement. Geologist: Charity Simpson LUST Incident No: NA

Water Depth While Drilling:-

Water Depth After Drilling: NA

Project Number: 00868B

Page

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Water Depth While Drilling:6'

Boring Log

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-3

Date Begin: 12/21/2000

Date End:

12/21/2000

						-0-,	FOUR ESTABLE VALORISMANCE. VERSION ASSESSED A PROVINCIAL
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		CONCRETE No recovery	_
•	0%					,	
5	60%		- 3 - 	Fill		Crushed limestone FILL Loose, Moist	Navious
45	90%		- 6 - - 9 -	SM	6 9 6 9 6 9 6 9 6 9 6 9 9 6 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND Dense, Wet Medium dense, Wet at 9'-10.5'	No visual No odor
20	90%			CL		Gray silty CLAY with some fine-grained SAND Medium firm, Wet	S 6
			- 12 			Boring terminated at 12 feet	
			15 				
		.	 - 18 				
Comple	etion Notes	<u> </u>				Drill Rig: SIMCO	EarthProbe 200
Hatche	ed pattern o	denotes sar	mple analy	zed.		Driller: Predrag	y Vrhovac

Water Depth After Drilling: NA

Geologist:

LUST Incident No: NA

Project Number: 00868B

Charity Simpson

Page

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	RONME		

Boring No.: B-4

Site:

Date Begin: 12/21/2000

900 West 18th Street Chicago, Illinois

Date End: 12/21/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
			- -	Concrete		CONCRETE No recovery	
-	0%					No recovery	
<1	80%		_ 3 _	Fill		Black silty Sand and Gravel Loose, Moist	90
102	80%		- 6 -		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND Medium dense, Damp	No visual No odor
125	90%		- 9 - - 9 -	SM			¥
			— 12 — — -	CL	<i>.</i>	Gray silty CLAY with trace fine-grained SAND Firm, Damp Boring terminated at 12 feet	*
			15 18				
	tion Notes		_			Drill Rig: SIMCO	EarthProbe 200

Completion Notes: Hatched pattern denotes sample	e analyzed.			g Vrhovac	
		Geologist:	Charit	y Simpson	
ī		LUST Incident ?	No: NA		
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number:	00868B	Page	1

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PI NEER	
ENVIRONMENTAL, INC.	

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 12/21/2000

Boring No.; B-5

Date End:

12/21/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	0%	-		Concrete		CONCRETE No recovery	
		[V]	_ 3 _		24242	Black fine-grained silty sand	No visual No odor
8	50%	4		Fill		with bricks and gravel Loose, Dry to moist	
313	50%		- 6 - 	CL		Black silty CLAY with some gravel, disturbed Soft, Wet	No visual Strong odor
30	90%					Gray silty CLAY with trace fine-grained SAND Firm, Damp	,
12	90%		12 	CL			No visual No odor
			- 15 - 			Boring terminated at 15 feet	. 4.
	tion Notes					Drill Rig: SIMCO	EarthProbe 200

Completion Notes: Hatched pattern denotes sample analyzed.

Driller: Predrag Vrhovac Geologist: **Charity Simpson**

LUST Incident No:

NA

Water Depth After Drilling: NA Water Depth While Drilling:6'

Project Number: 00868B

Page

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Water Depth While Drilling:-

Boring Log

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-6

Date Begin: 12/21/2000

Date End:

12/21/2000

			-21-22		Cnic	cago, III	inois		Date End:	12/21/200
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology		Description	5	No	tes
***				Concrete		CON	CRETE			88
81	50%	XXXX	_ _ _ 3	-		fine- brick	brown well-sort grained silty sand is and gravel e, Moist			
226	30%		_ _ _ 6	Fill			,	*	No v No c	isual odor
55	20%						, 00			
	1001		 9			Bori	ng terminated at	9 feet		
		**	— — — 12		,				·	s.
			_						1-3	
			— _. 15 —	_	9			8		
	31 X			_		2	a.	19	S.	
8	2 1			-						
Comple	tion Notes	: :	\$	2 8	l		Drill Rig:	SIMCO	EarthProbe 2	00
Hatche	ed pattern o	lenotes sa	imple ana	lyzed.			Driller:	Predrag	Vrhovac	
					Ð		Geologist:	Charity	Simpson	

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868B

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Site:

900 West 18th Street Chicago, Illinois Boring No.: B-7

Date Begin: 12/22/2000

Date End:

12/22/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
Ta c - aa				Concrete		CONCRETE	
-	0%					No recovery	
208	50%		- 3 - 	Fill		Crushed limestone, bricks, sand and gravel Dense, Moist	No visual Petroleum odor
			- 6 -	sw		Black well-sorted fine-grained SAND Dense, Damp	
890	60%		· ·	Fill	7.7.7.7.7.7 2.7.7.7.7.7.7	Crushed limestone Loose, Wet	Petroleum odor
759			- 9 	SM	9: 0 9: 0 9: 0 9: 0 9: 0 9: 0 9: 0 9: 0	Gray well-sorted fine-grained silty SAND Wet	
10	50%	_	- g-			Brown and gray silty CLAY Stiff, Moist	Slight odor
			- 12 -	CL			No visual No odor
16	90%	_	5. 42 5	-		r e	
			- 15 -			Boring terminated at 15 feet	
				1		ž.	ite
		_	- 18 -				
94							

Completion Notes:		Drill Rig:	SIMC	O EarthProbe 200		
Hatched pattern denotes sample analyzed. Driller: Predrag Vrhovac Geologist: Charity Simpson		Town areas				
		Geologist:	Charit	y Simpson		
		LUST Incident N	No: NA		3500	
Water Depth While Drilling:7'	Water Depth After Drilling: NA	Project Number:	00868B	Page	1	

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ENV	IRONM		EE	77.70

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-8

Date Begin: 12/22/2000

Date End:

12/22/2000

							The second secon
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
			9 18 2 12 12	Concrete		CONCRETE	
<1	60%	at .	_ 3 _			Crushed limestone FILL Dense, Slight Moist at 1'-6' Dense, Wet at 6'-7.5'	-
34	40%			Fill		* 4	No visual No odor
109	30%		<u> </u>				
		,	-			Refusal at 7.5 feet	
			9 –				
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s)			_, _		1		<u></u>
			— 18 —			х	
Comple	tion Notes	:	····		' 	Drill Rig: SIMCO	EarthProbe 200

Completion Notes:	Drill Rig:	SIMC	O EarthProbe 200	
Hatched pattern denotes sample analyzed.	Driller:	0.00		
	Geologist:	Charity Simpson		
	LUST Incident N	o: NA	· · · · · · · · · · · · · · · · · · ·	
Water Depth While Drilling:6' Water Depth After Drilling: NA	Project Number:	00868B	Page	1

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14	≟ } `	VH.	ER	
EN/			INC.	

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-9

Date Begin: 12/22/2000

Date End:

12/22/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	0%.	# # <u>-</u>		Concrete		CONCRETE No recovery	
<1	60%	,	_ 3 _	Fill		Tan and black sand, bricks and gravel Dense, Slighty moist	No visual No odor
1620	50%		- 6 - - 9 -	SM		Dark gray to black well-sorted fine-grained silty SAND Medium dense, Damp	No visual Slight odor
1420	90%		-	CL		Brown and gray silty CLAY	No visual Slight odor
5.	5	4	— 12 — — -			Firm, Moist Boring terminated at 12 feet	
	i.	·s	15 				
			18			N S	3.
Comple	tion Notes		70.7° Z			Drill Rig: SIMCO	EarthProbe 200

Completion Notes:		Drill Rig:	SIMC	ag Vrhovac		
Hatched pattern denotes sampl	e analyzed.	Driller:	Predra			
		Geologist:	Charit	y Simpson	v lotti o ce io	
		LUST Incident 1	No: NA			
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number	: 00868B	Page	1	

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Boring No.: B-10

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 12/22/2000

Date End:

12/22/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	740			Concrete		CONCRETE	A.
<1	20%					Crushed limestone FILL Dense, Moist	8
13	50%		- 3 -	Fill			No visual No odor
ř)		XXX	 - 6 -			Tan and black sand, bricks	4
2651	90%			Fill		and gravel Loose, Moist	No visual Strong odor
330	90%		— 9 — 	SM	9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6	Black well-sorted fine-grained silty SAND Medium dense, Damp	No visual Slight odor
			— 12 —	CL		Gray silty CLAY Firm, Moist Boring terminated at 12 feet	
	100						
			15			ē	,
				·		ra e	v
	1000		— 18 <i>—</i> -				
						D. H.D. CD. CO.	F. 1 P. 1 200

Drill Rig: SIMCO EarthProbe 200 Completion Notes: Hatched pattern denotes sample analyzed. Driller: Predrag Vrhovac Geologist: Charity Simpson LUST Incident No: NA Water Depth While Drilling 9' Water Depth After Drilling: NA Project Number: 00868B Page 1

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EXIV	UDC	<i>一</i>	LI.	LJL	7 T F
FW/	III	MNC	FNI	AL,	INC.

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-11

Date Begin: 12/22/2000

Date End:

12/22/2000

, FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	001			Concrete		CONCRETE No recovery	
	0%					•	
44	50%		_ 3	Fill		Black sand, bricks, gravel and crushed limestone Loose, Moist	No visual
2946	50%		- 6 - - 9	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Black to tan well-sorted fine-grained silty SAND Medium dense, Damp	No visual No odor
31	50%			SM	9 9 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND Loose, Wet	*
						Boring terminated at 12 feet	
	2		L 15				÷
±°	9)		— 18 —			¥P	
Comple	tion Notes	L :				Drill Rig: SIMCO	EarthProbe 200

Hatched pattern denotes sample analyzed.

Driller:

Predrag Vrhovac

Geologist:

Charity Simpson

LUST Incident No:

NA

Water Depth While Drilling9'

Water Depth After Drilling: NA

Project Number: 00868B

Page



Site:

900 West 18th Street Chicago, Illinois Boring No.: B-12

Date Begin: 12/22/2000

Date End:

12/22/2000

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		CONCRETE	
<1	50%			Fitt		Crushed limestone	
283	50%		3 -	SM		Black well-sorted fine-grained silty SAND Loose, Wet	No visual
330	50%		- 6 	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tan well-sorted fine-grained silty SAND Loose, Wet	No odor
14	90%		- 9 - 			Brown and gray silty CLAY	e ,
			12	CL		with trace fine-grained sand Firm, Moist Boring terminated at 12 feet	
	N.		 15				¥
	·					e 8	
	,	•	— 18 — –	8	6		
Comple	tion Notes	:		·		Drill Rig: SIMCO	EarthProbe 200

Completion Notes:
Hatched pattern denotes sample analyzed.

Driller: Predrag Vrhovac

Geologist: Charity Simpson

LUST Incident No: NA

Water Depth While Drilling:5' Water Depth After Drilling: NA

Project Number: 00868B Page 1

וכן		ICCD			Boi	ring Log	Boring No.: B-13
EN/	VIRONMEN	VEEK NTAL, INC.		Site:	900 Chio	West 18th Street cago, Illinois	Date Begin: 12/22/2000 Date End: 12/22/2000
FID (ppm)	Sample Recovery	Sample	Dept Feet	th Soil Class	Lithology	Description	Notes
				Asphalt		ASPHALT	
-	0%		-	1		No recovery	
11	60%		- 3 ₁ 6	SM	9 9 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Black well-sorted fine-grained silty SAND with trace gravel Medium dense, Moist	No visual No odor
4	50%				6 9 6 9 6 9 6 9 6 9 6 9 9 9 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND	
3	60%		- 9 -	SM	6	Medium dense, Wet	
B			- 12 - - - 15			Boring terminated at 12 feet	
			- - - 18				× .
198	Symp.		-	4			į.
Comple	tion Notes	 S:			 	Drill Rig: SIMC	O EarthProbe 200
Hatche	ed pattern o	denotes sar	mple an	alyzeď.		Driller: Predra	g Vrhovac
	2					Geologist: Charit	y Simpson
r <u>e </u>	<u> </u>		·	<u> </u>		LUST Incident No: NA	
Water D	epth While	e Drilling:	3'	Water Depth	After Drilling: N	A Project Number: 00868B	Page 1

ומ		ner			Во	ring L	.og		Boring No.:	B-14
EN	NVIRONMENTAL, INC.				900 West 18th Street Chicago, Illinois			Date Begin: Date End:	12/22/2000	
FID (ppm)	Sample Recovery	Sample	Dep Fee	th Soil Class	Lithology		Description		Not	es
41			Section 2	Asphalt		ASP	HALT			
-	0%		_			No r	ecovery			
1			 .	» -]						
P			3	Fill	1.7.7.7.7.7.7		shed limestone		No vi No o	sual dor
<1	60%		F		090/090/09		se, Moist well-sorted fine-grain	ned	<u>.</u> ₹	av I
	00%		_	- SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	silty	SAND se, Moist			
1			— ·6		0 9 0 9 0 0 0 0 0 0		er refusal at 6 feet			
		,	<u>e</u>	_		Aug	er refusar at 6 feet	¥8		
										
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						25 <u>-32</u> 4.	1 March 1 Marc]		
Comple	etion Notes	•					Drill Rig:		EarthProbe 20	00
				51		\$ 2 2 3 3	Driller:	Predrag '		
							Geologist:	Charity S	Simpson 	
							LUST Incident No:	NA		
Water D	epth While	Drilling	-	Water Depth	After Drilling: 1	NA _	Project Number: 008	868B	Page	1

Water Depth While Drilling:8'

וח		חקקו			Bo	ring L	og		Boring No.:	B-15
EN	VIRONMEN	ILLK ITAL, INC.		Site:	900) West 1	8th Street		Date Begin:	12/22/2000
	, 			 .		icago, Il			Date End:	12/22/2000
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology		Description		Not	es
				Asphalt			HALT			
=	0%					No r	ecovery			
							(*			*
	5004		- 3 -			fine- trace	k well-sorted grained silty SAN gravel		*	
<1	50%			SM	9 9 0 9 0 9 0 9 0 9 0 9 0 9 0 9 0 9 0 9	Med	ium dense, Moist			
			- 6 _. -		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		#2 1 (20)		No vi No o	
<1	50%	-	<u></u>		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	,	a t a			;
		-			9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	silty	well-sorted fine-gr	rained		
			- 9 -	SM	9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Med	ium dense, Wet			
<1	90%		_	- CT		Gray	silty CLAY with	some		
			– 12 <i>–</i>	CL		fine-	grained sand Wet	. /		
			-	-		Bori	ng terminated at 1	2 feet	1	
		-		-				·		
V20	P.		- 15 -		-					
			<u>.</u>	1						
			-	1					[`	•
			– 18 –	1			ě.	<u>0</u> 0		
			- -						÷	
Comple	etion Notes				·		Drill Rig:	SIMCO	EarthProbe 20	00
Hatche	ed pattern o	ienotes sai	mpie analy	zed.			Driller:	Predrag	Vrhovac	
						2	Geologist:	Charity	Simpson	× 19

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868B

Page



Boring No.: B-16

Site:

Date Begin: 12/22/2000

900 West 18th Street Chicago, Illinois

12/22/2000 Date End:

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Asphalt		ASPHALT	
-	0%	-				No recovery	
80			- 3 -		9 9 9 0 9 0	· Black well-sorted	8
<1	70%		 6 -	SM		fine-grained silty SAND with some glass and cinders Medium dense, Damp	No visual No odor
<1	50%		_		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND Medium dense, Wet	a a
<1	50%	× × × × × × × × × × × × × × × × × × ×	- 9 - 	SM	9 9 9 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	· n	
			— 12 —		F. I d. I F. I D. I F. I O.	Boring terminated at 12 feet	
*			_ 15	r			
2.	,		— 18 — —		•		*
				7/7	1905	Drill Rig. SIMCO	FarthProbe 200

Completion Notes: Hatched pattern denotes sample	e analyzed.	Drill Rig:	SIMCO	EarthProbe 200		
F		Driller:	Predrag	Vrhovac		
		Geologist:	Charity Simpson			
		LUST Incident No:	NA			
Water Depth While Drilling:7'	Water Depth After Drilling: NA	Project Number: 00	868B	Page I		

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ENV	IRONME	NTAL	, INC.

Boring No.: B-17

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 03/08/2001

Date End: 03/08/2001

	,			r	,		
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
1	1	XXXX		Concrete		Concrete	
	1				1. 1. 1. 1. 1. 1. 2	Crushed limestone FILL	
3	50%		-	Fill	1.1.1.1.1.2	Loose, Moist	
	3070		<u> </u>		69/9/07/09	*	ās .
		\otimes	j.	2000	9 9 9 9 9	Brown silty SAND	
		XXXXX	- . 3		0 9 9 9 9	Loose, Moist	8
		j			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
1	100%			SM	9 9 9 9		İ
1	100%		_		9 9 9 9 9		1
	İ				9 9 9 9 9 9 9 9 9 9	e.	1
*		XXXX	- 6 -		3 P 6 P 6 P	Brown clayey SILT	*
						Soft, Moist	
4	100%		-	0.7			i i
4	100%	\otimes	_	OL			
		\otimes					
	1	XXXXX	_ 9 _			Boring terminated at 9 feet	
×						borning terminated at 9 feet	İ
	1	<u> </u>					
						en en en en en en en en en en en en en e	
		-	- 12				
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						3	
	1		— 18 —				
	1			ľ			
							785
						Drill Rige SI	IMCO EarthProbe 200

Completion Notes:	Drill Rig:	EarthProbe 200		
Hatched patterns denote sample analyzed.	Driller:	Predrag Vrhovac		
	Geologist:	C. Sim	pson	
	LUST Incident No:	NA	***	M 8
Water Depth While Drilling:6.5' Water Depth After Drilling: NA	Project Number: 00)868D	Page	1

זמ	(D)	מחחו			Bon	ring Log	Boring No.: B-18
ENV	IRONMEN	IEEK Ital, inc.		Site:	900 Chio	Date Begin: 03/08/200 Date End: 03/08/200	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
		XXXX		Concrete		Concrete	
14	90%			Fill		Crushed limestone FILL Loose, Moist	
18	90%	3	- 3 - - 6 -	Fill		Crushed limestone Fill and black to medium-tan sand Loose, Moist	No visual No odor
36	40%		 - 9	sw		Black well-sorted medium-grained SAND with woods fragments Dense, Wet	Slight odor
15	50%		- 12 -	CL		medium-grained SAND Dense, Wet Brown and gray silty CLAY with trace fine-grained sand Firm, Moist Boring terminated at 12 feet	No visual No odor
			— 15 —				
			 - 18 -			* .	
Comple	tion Notes	<u></u>	*	<u> </u>	L	Drill Rig: SIM	CO EarthProbe 200

Geologist:

Water Depth After Drilling: NA

Water Depth While Drilling:9'

LUST Incident No: NA

Project Number: 00868D

C. Simpson

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EN∖	/IRC	MMI	ENT	AL.	INC.

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-19

Date Begin: 03/08/2001

Date End:

03/08/2001

		,				age, minor	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
		XXXX		Concrete	7 - 7 - 7 -	Concrete	
12	90%		 	Fill		Crushed limestone FILL Loose, Moist	No visual No odor
17	90%			Fill		Black medium-coarse sand with bricks and concrete Loose, Moist	
		****	<u> </u>	Concrete		Concrete	100
				 		Refusal at 6.5 feet	1 .
			-			19.	
			_ 9			Ÿ.	
	348		_ , _				
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	i		-				3
			— 12 —			·	8
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			- 15 -	-			
				-			
			<u>-</u> -]			<u>s</u>
		nec (— 18 <i>—</i>	1			
			<u> </u>				(4)
Comple	tion Notes	•				Drill Rig: SIMCO	EarthProbe 200

Completion Notes:		Drill Kig:	J Earth Probe 20	J	
Hatched pattern denotes sample a	nalyzed.	Driller: Predrag Vrhovac			
		Geologist: C. Simpson			
		LUST Incident	No: NA		
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number:	00868D	Page	1

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EN۱	VIRO	MNC	EN	TAL	, INC

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-20

Date Begin: 03/08/2001

Date End:

03/08/2001

		200	S-25-174			ago, minors	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	1 2 2	XXX		Concrete	R:= R:= R:=	Concrete	
25	60%		- 3 -	Fill		Crushed limestone FILL Loose; Moist	
24	85%		- 6 -	Fill		Crushed bricks, gravel, concrete and sand	No visual No odor
26	85%		-	SM	9: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brown well-sorted fine to medium-grained silty SAND	-
			- 9 - 	CL		Dense, Wet Brown medium-grained sandy CLAY Firm, Moist	
26	85%		- 12 -	CL		Gray silty CLAY with some medium-grained sand Soft, Wet	
						Boring terminated at 12 feet	
						* .	
			– 15 –			, .	
					8	ē	
			-			N.	To the
			- 18 -		5	* .	

Hatched pattern denotes sample analyzed.

Driller:

Predrag Vrhovac

Geologist:

C. Simpson

LUST Incident No:

Water Depth While Drilling:7'

Water Depth After Drilling: NA

Project Number: 00868D

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Boring No.: B-21

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Date Begin: 03/08/2001

Site:

900 West 18th Street Chicago, Illinois

Date End:

03/08/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
26	60%			Concrete	7, %, 7, %, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	Concrete Crushed limestone FILL Loose, Moist	
	i		- 3 -			Crushed bricks, gravel and sand FILL Loose, Moist	No visual No odor
26	85%		 - 6 -	Fill		÷	8
38	85%			sw	<u> </u>	Black well-sorted medium-grained SAND Dense, Damp	Slight odor
			<u> </u>	CL .		Brown well-sorted medium-grained silty CLAY	
27	85%			CL		Dense, Damp to wet Brown and gray silty CLAY Stiff, Moist	No visual No odor
			— 12 —			Boring terminated at 12 feet	ì
8			 - 15 -	loses	į.		8
			- 13 -			SI CONTRACTOR OF THE CONTRACTO	
			_				
						¥	,
Comple	tion Notes	:				Drill Rig: SIMCO	EarthProbe 200

Completion Notes:		Drill Rig:	O EarthProbe 2	00	
Hatched pattern denotes sample	e analyzed.	Driller:	Predrag Vrhovac		
		Geologist:	C. Sim	pson	
	Ã ₂	LUST Incident	No: NA		
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number	: 00868D	Page	1

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		T.	CC	1
ENV	IRONN	IENT	AL, I	NC.

Site:

900 West 18th Street Chicago, Illinois _____

Boring No.: B-22

Date Begin: 03/08/2001

Date End:

03/08/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
7	70%			Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	No visual No odor
11	70%			Fill SW	/ 9/6/9/6/ / 6/6/9/9/6/9 / 6/6/9/6/9/6/9	Crushed bricks and sand FILL Loose, Moist Tan and black well-sorted	No visual Slight odor
20	90%		- 6 - - 9 -	SM	9 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	medium-grained SAND Dense, Moist Dark gray well-sorted medium-grained silty SAND Dense, Wet	No visual Slight odor
12	90%	-		CL	3	Brown and gray silty CLAY Firm, Moist	No visual No odor
g s			12 			Boring terminated at 12 feet	æ
			_ 15 			,	s
		2	- 18 			Drill Rig: SIMCO	EarthProbe 200

Completion Notes: Hatched pattern denotes sample	e analyzed.	Drill Rig:	g Vrhovac	200	
5	¥	Geologist: C. Simpson		ıpson	
		LUST Incident N	o: NA		
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number:	00868D	Page	1

ות		חיייו	200
ENV	VIRONMEN	IEEK ITAL, INC.	
ID pm)	Sample Recovery	Sample	

Water Depth While Drilling:-

Boring Log

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-23

Date Begin: 03/08/2001

Date End:

Page

1

C. Simpson

NA

Geologist:

LUST Incident No:

Project Number: 00868D

03/08/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology		Description		Notes
· · · ·	 	XXXX		Concrete		Conc	rete		
15	80%		 	Fill		Crus	ned limestone FILL e, Moist		·
14	80%		 - 6 -	Fill		cinde	c sand with gravel and ers e, Moist		No visual No odor
14	90%		-a. 2 1	SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		well-sorted um-grained silty		
19	90%		- 9 — 	CL		SAN Dens Gray fine-		e .	·
C.	1		— 12 —			Borin	ng terminated at 12 fee	t	
			 - 15				, ^{co}		
									,
			- 18 <i>-</i>		3				4
Comple	tion Notes	5.					Drill Rig:	SIMCO I	EarthProbe 200
Hatche	ed pattern o	denotes sa	mple analy:	zed.				Predrag \	· · · · · · · · · · · · · · · · · · ·

Water Depth After Drilling: NA

Boring No.: B-24

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 03/08/2001

Date End:

03/08/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
14	50%		 	Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	No visual No odor
14	80%		6	Fill		Black sand with gravel and cinders Dense, Moist	
48	50%			SM	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tan well-sorted medium-grained silty SAND Dense, Damp to wet	No visual Slight odor
10	50%	c × × × ×	_ 9	CL		Gray silty CLAY with some fine-grained sand Firm, Moist	No visual No odor
٠			— 12 — — — —			Boring terminated at 12 feet	e .
			- 15 - 				· 5.
Comple	etion Notes					Drill Rig: SIMCO	EarthProbe 200

Hatched pattern denotes sample analyzed.

Driller:

Predrag Vrhovac

Geologist:

C. Simpson

LUST Incident No: NA

Water Depth While Drilling:-

Water Depth After Drilling: NA

Project Number: 00868D

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Date Begin: 03/09/2001

Boring No.: B-25

Site:

900 West 18th Street Chicago, Illinois

Date End:

03/09/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
28	50%		- 3 -	Concrete		Concrete Crushed limestone FILL Loose, Moist	8
19	70%		- 6 -	Fill			No visual No odor
22	95%			SP	2,90,70,7	Brown poorly-sorted fine-coarse SAND with gravel Dense, Wet	9
17	95%		9	OL		Gray silty CLAY with some fine-grained sand and trace organics Soft, Wet Stiff at 11.5'-12'	±
٠		72	12			Boring terminated at 12 feet	-
e e		00.	- 15				2.
			18			Drill Rig: SIMCO	FarthProhe 200

Completion Notes:		Drill Rig: SIMCO EarthProbe 200			200
ompletion Notes: Hatched pattern denotes sample analyzed.	analyzed.	Driller:	Bob Tirjer		
		Geologist: C. Simpson			<u> </u>
3		LUST Incident 1	No: NA		
Water Depth While Drilling:7'	Water Depth After Drilling: NA	Project Number	00868D	Page	1

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11		NH	HK
ENV	IRONME	. —	

Boring No.: B-26

Date Begin: 03/09/2001

Site:

900 West 18th Street Chicago, Illinois

Date End:

03/09/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
15	85%		_ 3	Concrete		Concrete Pea gravel Loose, Moist Wet at 3'-9'	
10	85%		 6	GW		· · · · · · · · · · · · · · · · · · ·	No visual No odor
3	90%		 			3 ***	
	30			,	,	Obstruction at 9 feet	
			12 				
	3		- 15 		,	ces.	
		_	_ 18			Datil Bin SDAC	2 Footback 200

Drill Rig: SIMCO EarthProbe 200 Completion Notes: Driller: Bob Tirjer Geologist: C. Simpson LUST Incident No: NA Water Depth While Drilling:3' Water Depth After Drilling: NA Project Number: 00868D Page

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ľ		۱H	'K
	IRONME		

Date End:

Boring No.: B-27

900 West 18th Street Chicago, Illinois

Site:

Date Begin: 03/09/2001

03/09/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
17	70%		 	Concrete		Concrete Crushed limestone FILL Loose, Moist Wet at 3-7'	
20	80%		 6 -	Fill			No visual No odor
15	85%		<u> </u>	Fil1		Bricks, sandy clay and gravel FILL Obstruction at 8 feet	
٠.			- 9 - 			e e e e e e e e e e e e e e e e e e e	
			- 12 -	7000			
						9	
			-				
			_ 18 _				
Comple	etion Notes	:				Drill Rig: SIM	CO EarthProbe 200

Hatched pattern denotes sample analyzed. Driller: Bob Tirjer C. Simpson Geologist: LUST Incident No: NA

Water Depth While Drilling:3'

Water Depth After Drilling: NA

Project Number: 00868D

Page

Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-28

Date Begin: 03/09/2001

Date End:

03/09/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
12	40%			Concrete		Concrete Crushed limestone, bricks and gravel FILL Loose, Moist	
11	80%		- 3 - 	Fill			No visual No odor
12	80%		- 6 	Fill		Crushed limestone, bricks, gravel and black fine-coarse sand Loose, Wet	
			- 9 - 			Boring terminated at 9 feet	
		;	— 12 — –				
2			— 15 — — –				
					ų.		·.
Comple	tion Notes	:				Drill Rig: SIMCO	EarthProbe 200

Driller:

Bob Tirjer

Geologist:

C. Simpson

LUST Incident No:

NA

Water Depth While Drilling:7'

Water Depth After Drilling: NA

Project Number: 00868D

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EN\	/IRONME!	NTAL, INC.	

Water Depth While Drilling:

Boring Log

Site:

900 West 18th Street

Boring No.: B-29

Date Begin: 03/09/2001

ENVIRONMENTAL, INC.				West 18th Street	10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000		
					Chic	cago, Illinois	Date End: 03/09/20
FID (ppm)	Sample Recovery	Sample	Dept Feet	h Soil Class	Lithology	Description	Notes
				Concrete		Concrete	
4.6	70%		- - - 3	Fill		Crushed limestone FILL Loose, Moist	No visual No odor
12	80%			_			
			— 6	Fill	7,7,7,7,7	Dark gray medium-grained Sand and Gravel Gray silty CLAY with some	
8	90%					fine-grained sand Soft, Wet Stiff at 9-10'	Sheen Slight odor
			– 9				ş
11	95%	: 	_	CL		,	
	,		— 12 –			9	
7	90%						No visual No odor
			— 15 -	_		Boring terminated at 15 feet	
			 18				at wat
			-				:
	dan N	<u> </u>	<u> </u>			Drill Rig: SIM	1CO EarthProbe 200
-omple Hatche	etion Notes ed pattern d	: lenotes sa	mple an	alyzed.		177	Tirjer
					-0 3r		Simpson
						LUST Incident No: NA	,

Water Depth After Drilling: NA

Project Number: 00868D

Page

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ומ		מתחו			Bor	ring Log	Boring No.: B-30
	ENVIRONMENTAL, INC.			Site:	000	West 18th Street	Date Begin: 03/12/20
ENTITIONNENT JAE, 1110.		•		Date End: 03/12/2			
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		Concrete	
6	80%		_	Fill	//////////////////////////////////////	Crushed limestone FI Loose, Moist	LL No visual
6	80%		- 3 -	sw	0.0000000000000000000000000000000000000	Black and tan well-so fine-grained SAND Dense, Wet	orted No odor
		X X X X				Refusal at 4 feet	
							is.
			– 6 –			ę	•
			-				
			* 11	<u> </u>			
		} }		•			
			9				
			<u> </u>				
			— 12 —				r *
							,
		}	- -	5			
			— 15 <i>—</i>				s
				,	50		,
							1
			-				*
	1	1	18 <i></i>			deg	1
		ļ	<u>-</u>		,		
Comple	tion Notes	<u></u>		L	<u> </u>	Drill Rig:	Hand Geoprobe
Hatche	ed pattern o	lenotes sa	mple analyz t.	zed.		Driller:	Jim Mizwicki
nananan erekilikasi sakita 🖼						Geologist:	C. Simpson
	**					LUST Incident	No: NA

Water Depth After Drilling: NA

Project Number: 00868D

Page

Water Depth While Drilling:3°

וֹח		ппр			Bor	ing Log	Boring No.:	B-31
ENVIRONMENTAL, INC.			Site:	900 Chic	Date Begin:	03/12/200		
FID (ppm)	Sample Recovery	Sample	Dep Fee	th Soil t Class	Lithology	Description	No	tes
<l< td=""><td>80%</td><td></td><td>-0</td><td>Concrete Fill</td><td>7.7.7.7.7.7</td><td>Concrete Crushed limestone FILL Loose, Moist</td><td></td><td></td></l<>	80%		- 0	Concrete Fill	7.7.7.7.7.7	Concrete Crushed limestone FILL Loose, Moist		
<1	80%	•	- - 3	sw	<i>77777777</i>	Black well-sorted fine-grained SAND Dense, Moist Gray silty CLAY with trace	No v	risual odor
20	80%			CL		fine-grained sand Firm, Moist	,	-20
		****	— б -			Boring terminated at 6 feet		
×2.			- 9					
8		-		-				s
			– 12	_				Œ
£			- 15		5			
			_ 13				4	
			- 18				70	á
			<u></u>					

Completion Notes:
Hatched pattern denotes sample analyzed.
Boring located in basement.

Drill Rig: Hand Geoprobe

Driller: Jim Mizwicki

Geologist: C. Simpson

LUST Incident No: NA

Water Depth While Drilling: Water Depth After Drilling: NA

Project Number: 00868D

Page 1

Water Depth While Drilling:7.5'

וח		מחחו			Boi	ring L	og	Boring No.: B-32
ENVIRONMENTAL, INC.			Site: 900 West 18th Street Chicago, Illinois				Date Begin: 03/12/2001 Date End: 03/12/2001	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology		Description	Notes
15	80%	-	- 3 -	Concrete	1, 4, 5, 4, 5, 7, 7, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,	Crus	crete hed limestone FILL se, Moist	
18	85%	-	. .	Fill	7. % % 7 % 7 7. % % 7 % 7 7. % % 7 % 7 7. % 7 % 7 % 7	Loo: Blac	hed bricks FILL se, Moist k clayey SAND grading	
19	90%		- 6 — · -	SC SM		Firm	ack sandy CLAY , Moist vn well-sorted fine to	No visual No odor
7	90%		- 9 —	CL	4, 9, 0, 9, 0	med SAN Den Brov Soft	ium-grained silty ID se, Wet wn sandy CLAY	
			 - 15			Воп	ng terminated at 12 feet	
			- 18				- 10 - 10	
	etion Notes ed pattern c		nple analy:	zed.		1	Driller: Bob	ICO EarthProbe 200 Tirjer

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

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	IRONM		93	100

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-33

Date Begin: 03/12/2001

Date End:

03/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
			· · · · · · · · · · · · · · · · · · ·	Concrete		Concrete	
6	80%			Fill		Crushed limestone FILL Loose, Damp	41
10	80%		— 3 — –	Fill		Crushed bricks FILL	
	NOTE OF STREET		<u> </u>		10/19/07/19/09	Loose, Moist	
			- 6 -			Brown well-sorted fine-grained clayey SAND Dense, Damp to wet Wet at 6'-12'	No visual No odor
15	80%		 - 9 -	SC			
12	80%						
				ł	1. 7. 1. 7. 1. 1	6920 FT	
			- 12		107.9.107.91.67	Boring terminated at 12 feet	
				ĺ		Bornig terminated at 12 feet	ş 1
				2 <u>1</u>			©.
			— 15 —			*1 to	i d
			= '=	¥		u.	s
			18 <i></i> 				
Comple	tion Notes	:	<u> </u>			Drill Rig: SIMCO	EarthProbe 200

Completion Notes:		Drill Rig:	SIMCO EarthProbe 200	
Hatched pattern denotes sample a	analyzed.	Driller:	Bob Tirjer	
		Geologist:	C. Simpson	
Service 5	1	LUST Incident I	No: NA	
Water Depth While Drilling:6'	Water Depth After Drilling: NA	Project Number	00868D Page	1

DI	IEER
	ITAL, INC.

Water Depth While Drilling:6'

Boring Log

Boring No.: B-34

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 03/12/2001

					Chic	ago, Illinois	Date End: 03/12/200
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
• •				Asphalt	9707977797	ASPHALT	
<1	85%		_	Fill		Crushed limestone FILL Loose, Damp	
	6376		- 3 -	Fill		Black sand, cinders, bricks and gravel FILL Loose, Moist	
<1	90%		<u>-11</u>	1			
			- - 6 -	sc		Brown well-sorted fine-grained clayey SAND Dense, Damp to wet Wet at 6'-7'	
<1	95%		_		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tan well-sorted fine-grained silty SAND Medium dense, Wet	No visual
<1	85%		- 9 - -	SM	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		No odor
<1	80%		— 12 - - -		9: 0: 0: 0: 9: 3: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0:	Gray silty CLAY with trace fine-grained sand Firm, Moist	
	38		— 15 -	-			AST .
<1	75%	A	-	_			9
			— 1 8 -			•	ē
Comple	etion Notes	:	10.000 To 10.000			Drill Rig: SIM	CO EarthProbe 200
Hatche	ed pattern o	lenotes sa	mple anal	yzed.		Driller: Bob	Tirjer
						Geologist: C. S	impson
							·

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

Page

1

DICALIED		48	3000000	Bor	ing Log	Boring No.:	B-34	
EN\	IRONMEN	ILLING		Site: 900 West 18th Street			Date Begin: 03/12/20	
<u> </u>				·•	Chic	ago, Illinois	Date End:	03/12/200
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	No	tes
						3		
			— 21 —	CL				
						**		
			= =	-				
		-	— 2 4 —			ų		
	4	-				š		
		1		1		¥	M	
	68		– 27 –					
		-	-2) A					
			n 97			er .		
	\$1		— 30 —			Boring terminated at 30 feet	_	
			-		2			88
				1		*		
			— 3 3 —				*	
		ji 10						
•			— 36 —					
						€ **		

Completion Notes:
Hatched pattern denotes sample analyzed.

Drill Rig: SIMCO EarthProbe 200

Driller: Bob Tirjer

Geologist: C. Simpson

LUST Incident No: NA

Water Depth While Drilling:6' Water Depth After Drilling: NA Project Number: 00868D Page 2

DI		(III)	CD
		NC.	
ENV	IRONME	NTAL	, INC.

Date End:

Boring No.: B-35

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 03/12/2001

03/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
		XXXX		Asphalt		ASPHALT overlying concrete	
<1	85%		_	Fill		Crushed limestone FILL Loose, Moist	
<1	90%		- 3 - 	Fill		Black sand, cinders, bricks and gravel FILL Loose, Moist	No visual No odor
<1	90%		- 6 - - 9 -	. SM		Brown well-sorted fine-grained silty SAND Dense, Damp	
				٠	. H	Boring terminated at 9 feet	
2			 15				,
۵			18 	7 - E	2	n e	

Completion Notes:		Drill Rig:	SIMCO EarthProbe 200			
Hatched patterns denote sample	e analyzed.	Driller:	Bob T	irjer	35 Tan 4 27	
		Geologist:		C. Simpson		
		LUST Incident	No: NA			
Water Depth While Drilling:-	Water Depth After Drilling: NA	Project Number	: 00868D	Page	1	

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10000	San San San San San San San San San San	VLLIV NTAL, INC.	

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-36

Date Begin: 03/15/2001

Date End:

03/15/2001

FID ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Asphalt		ASPHALT	
<i< td=""><td>70%</td><td>140</td><td></td><td>Fill</td><td></td><td>Crushed limestone FILL Loose, Moist</td><td>-</td></i<>	70%	140		Fill		Crushed limestone FILL Loose, Moist	-
<1	50%		- 3 - 	Fill		Black sand, cinders, bricks and gravel FILL Loose, Moist	
	<i></i>		 - 6 -		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Tan well-sorted fine-grained silty SAND Medium dense, Wet	No visual No odor
<1	90%		 - 9 -	SM		\$	
<1	90%				S		
	35,		— 12 —			Boring terminated at 12 feet	040
	;					F .	
		300 September 20	- 15 -				
i.e			_				
			=				
			— 18 —				
	3	-					
	tion Notes		<u> </u>		L	Drill Rig: SIMCO	EarthProbe 200

Completion Notes:	Drill Rig:	SIMC	O EarthProbe 20	0
Hatched pattern denotes sample analyzed.	Driller:	Predra	g Vhrovac	
,	Geologist:	J. Miz	wicki	
	LUST Incident No	: NA		
Water Depth While Drilling: Water Depth After Drilling: NA	Project Number: (0868D	Page	1



Site:

900 West 18th Street Chicago, Illinois Boring No.: B-37

Date Begin: 04/12/2001

Date End:

04/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
-	0%					No recovery	
6	90%		_ 3	SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist	No visual Petroleum odor
4	100%		6, 9	SM		Brown well-sorted fine-grained silty SAND Loose, Wet	No visual No odor
16						Boring terminated at 9 feet	
i) es			 - 12 -		r g	÷	
			 			,	je
,			— 15 —				
	<u></u>		-			2	
			- 18 		(+)		
Comple	tion Notes	<u> </u>		57,425,53		Drill Rig: SIMCO	EarthProbe 200

Completion Notes: Hatched pattern denotes sample	e analyzed.	Drill Rig:		O EarthProbe 2 g Vhrovac	200
		Geologist:	J. Miz	wicki	
2		LUST Incident	No: NA		
Water Depth While Drilling-	Water Depth After Drilling: NA	Project Number:	: 00868D	Page	1

D	JEED
	 VEER
	 NTAL, INC.

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-38

Date Begin: 04/12/2001

Date End: 04/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
-	0%					No recovery	8 ,
15	80%		_ 3 _	SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist	No visual No odor
5	90%		— 6 — – – – 9 —	SM		Brown well-sorted fine-grained silty SAND Loose, Wet	,
			- 12 - - 15 -			Boring terminated at 9 feet	
			18		· v	Drill Rig SIMCO	FarthProhe 200

Completion Notes:
Hatched pattern denotes sample analyzed.

Drill Rig: SIMCO EarthProbe 200

Driller: Predrag Vhrovac

Geologist: J. Mizwicki

LUST Incident No: NA

Water Depth While Drilling:6.5' Water Depth After Drilling: NA

Project Number: 00868D Page 1

ומ		חחח			Bor	ring Log	Boring No.: B-39
ENV	IRONMEN	LLK ITAL, INC		Site:	900 Chio	Date Begin: 04/12/2001 Date End: 04/12/2001	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
9	50%	£	- , - ,	Asphalt	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	ASPHALT with gravel base Gray and black well-sorted fine-grained silty SAND and some fine to medium-grained gravel Loose, Moist	
404	90%		- -		6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9	Brown well-sorted	
1 .	100%		— 6 — — 9	SM	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	fine-grained silty SAND Loose, Moist Wet at 6'-10'	No visual No odor
2	100%		_	- CL		Gray and brown silty CLAY Soft, Wet Medium firm at 11'-12'	
			— 12 — — — 15			Boring terminated at 12 feet	
			- - - 18				
Comple	tion Notes	: :	1		<u> </u>	Drill Rig: SIMO	CO EarthProbe 200

Geologist:

Water Depth After Drilling: NA

Water Depth While Drilling:6'

LUST Incident No: NA

Project Number: 00868D

J. Mizwicki

Page

1

PIONEER ENVIRONMENTAL, INC.

Boring Log

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-40

Date Begin: 04/12/2001

Date End:

04/12/2001

		A CONTRACTOR OF THE PARTY OF TH					
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
1	70%			Asphalt SM		ASPHALT with gravel base Gray and black well-sorted fine-grained silty SAND Loose, Moist	its.
83	90%		_ 3 _	SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist	No visual
29	100%		- 6 - - 9 -	SM		Brown well-sorted fine-grained silty SAND Loose, Wet	No odor
6	90%			CL	P	Gray and brown silty CLAY Soft, Wet	
**			- 12			Boring terminated at 12 feet	
						Drill Rig: SIMCO	EarthProbe 200

Completion Notes:	Drill Rig:	SIMC	D EarthProbe 2	00
Hatched pattern denotes sample analyzed.	Driller:	Predra	g Vhrovac	
	Geologist:	J. Miz	wicki	
	LUST Incident?	No: NA		
Water Depth While Drilling:6' Water Depth After Drilling: NA	Project Number:	00868D	Page	1

זמ		מחח	-		Bor	Boring No.:	B-41	
ENV	ENVIRONMENTAL, INC.			Site:	Date Begin:	04/12/200		
FID ppm)	Sample Recovery	Sample	Depti Feet	h Soil Class	Lithology	Description	No	tes
2	50%		- 3	Asphalt Fill		ASPHALT with gravel base Bricks and cinders with some black silty sand FILL Loose, Moist		200
32	9076		- - 6 -	SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist Brown well-sorted	No v No c	isual odor
28	90%		- - 9	SM		fine-grained silty SAND Loose, Wet Gray and brown silty CLAY Soft, Wet	_	
11	90%		-	CL		Firm at 11'-12'		
**			- 12 -			Boring terminated at 12 feet		

Completion Notes:
Hatched pattern denotes sample analyzed.

Drill Rig: SIMCO EarthProbe 200

Driller: Predrag Vhrovac

Geologist: J. Mizwicki

LUST Incident No: NA

Water Depth While Drilling:7 Water Depth After Drilling: NA Project Number: 00868D Page 1

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PION	
ENVIRONMEN	IAL, INC.

Site:

900 West 18th Street Chicago, Illinois Boring No.: B-42

Date Begin: 04/12/2001

Date End: 04/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
5	50%			Asphalt SM	9. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ASPHALT with gravel base Gray and black well-sorted fine-grained silty SAND Loose, Moist	
138	90%		 	SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist	No visual
48	90%		- 6 - 9 -	SM		Brown well-sorted fine-grained silty SAND Loose, Wet	No odor
-11	90%			CL		Gray and brown silty CLAY Firm, Wet Boring terminated at 12 feet	
			 - 15				
			- 18 -		·		
		_					2

Completion Notes:	Drill Rig: SIMCO EarthProbe 200				
Hatched pattern denotes sample analyzed.	Driller: Predrag Vhrovac				
	Geologist:	J. Miz	wicki		
1	LUST Incident No	: NA			
Water Depth While Drilling: 6.5' Water Depth After Drilling: NA	Project Number: (0868D	Page	1	

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INC.

Boring No.: B-43'

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 04/12/2001

Date End:

04/12/2001

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
3	75%		 	Asphalt	8	ASPHALT with gravel base Gray and black well-sorted fine-grained silty SAND Loose, Moist	
7	90%		3 -	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gray and black well-sorted fine-grained silty SAND Loose, Moist	No visual
11	90%		- 6 - - 9 -	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brown well-sorted fine-grained silty SAND Loose, Wet	No odor
4	90%		 - 12 -	CL	3 5 5 5 5 5 5 5 5 5	Gray and brown silty CLAY Soft to firm, Wet Boring terminated at 12 feet	
						Boring terminated at 12 feet	
	4		18	rs-o			
 Comple	tion Notes	:	<u> </u>			Drill Rig: SIMCO	EarthProbe 200

Water Depth While Drilling:-

Hatched pattern denotes sample analyzed.

Water Depth After Drilling: NA

Driller;

Predrag Vhrovac

Geologist:

J. Mizwicki

LUST Incident No: NA

Project Number: 00868D

Page

8:21AM by S	haron.Dowson p	0. 125/155							
וח)			Boring No.:	B-44		
ENV	IRONMEN	LEK ITAL, INC)).	Site: 900 West 18th Street				Date Begin:	04/12/2001
						Chi	icago, Illinois	Date End:	04/12/2001
FID (ppm)	Sample Recovery	Sample	Dep Fee	th t	Soil Class	Lithology	Description	No	tes
		-			Asphalt		ASPHALT with gravel base	<u> </u>	
<1	75%	. ,	- - - 3	_	Fill		Bricks and cinders Dry		
22	90%		- 6 -		SM SM		Gray and black well-sorted fine-grained silty SAND Loose, Moist Brown and black well-sorted fine-grained silty SAND Loose, Moist	No v No c	
Ţ	75%		_ 9 _	3	CL		Gray silty CLAY Soft, Wet Medium firm at 11.5'-12'		
			- 12 -	:	31		Boring terminated at 12 feet	-	

Completion Notes: Hatched pattern denotes sample analyzed.	Drill Rig:	SIMCO EarthProbe 200 Predrag Vhrovac		
	Geologist:	J. Miz	wicki	
	LUST Incident N	o: NA		
Water Depth While Drilling:10' Water Depth After Drilling: NA	Project Number:	00868D	Page	1.

18 -

ות		מחחו		35	Во	ring I	ωog		Boring No.:	B-45
ENV	VIRONMEN	VEEK ITAL, INC.		Site:	900 Ch) West 1	8th Street linois	7.00 10 10 10 10 10 10 10 10 10 10 10 10 1	Date Begin:	04/12/200 04/12/200
FID (ppm)	Sample Recovery	Sample	Dept Feet	h Soil Class	Lithology		Description		Not	tes
<1	75%		- - - 3	Asphalt Fill			HALT with gravel b	pase		
<1	100%		•	SM			and black well-sort		No v	igual
11	90%		- 6 - - 9	SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Loos Brow fine	se, Moist wn and black well-so grained silty SAND se, Moist	orted	No c	isuai odor
10	75%		- - - 12 -	CL		Soft	y silty CLAY , Wet ng terminated at 12	feet		
			- 15 -						•	
			- 18	-						
Comple Hatche	etion Notes ed pattern c	: lenotes sar	nple an	alyzed.			Drill Rig: Driller: Geologist: LUST Incident No.	Predrag J. Mizw	EarthProbe 20 Vhrovac icki	00
Water De	epth While	Drilling:1	1.5'	Water Depth A	After Drilling:	NA	Project Number: 00		Page	1

Water Depth While Drilling 9'

ות		מחחן			Bor	ing Log		Boring No.: B-46
ENV	IRONMEN	IEEK Ital, Inc		Site:		Date Begin: 5/10/01 Date End: 5/10/01		
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description		Notes
2	-			Concrete		Concrete		
2	60%		-	Fill		Crushed limestone Fl Loose, Moist	LL	
1	75%		- 3 - - - 6 -	Fill		Crushed limestone FI black to medium-tan Loose, Moist		No visual, No odo
.10	100%	-	_ ,		/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2	Black and tan well-so		
11	100%		_ 9 - _	sw		medium-grained SAN Dense, Wet	ID	No visual, No odo
			- - 12 -	CL		Brown and gray silty with trace fine-graine Firm, Moist Boring terminated @	d sand	
			<u></u>)	-		zomig tommiatou (g	,	
							20	
			— 15 - _					
							8	(de
			— 18 -			10.	-	
	6			-				
Commi-	tion Notes			<u></u>		Drill Rig:	SIMCO	Earthprobe 200
	pattern den		ple analyz	ed.		Driller:		Vrhovac
						Geologist:	Jim Miz	

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

Page



900 W. 18th Street Chicago, Illinois

Boring No.: B-47

Site:

Date Begin: 5/10/01

Date End:

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
2	50%			Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	
5	100%		_ 6 _	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
17	100%		_ 9 _	sw		Black and tan well-sorted medium-grained SAND Dense, Wet	
11	80%			CL		Brown and gray silty CLAY with trace fine-grained sand Firm, Moist Boring terminated @ 12'	No visual, No odor
,		3	 				
	100	(1)	 _ 18 _				
		1 120 <u>1</u> 10				Dell Rice CIMCO	Forthern 200

Completion Notes: Hatch pattern denotes sample anal	vzed	Drill Rig:	SIMCO Earthprobe 200			
rates patent acrotes sumple and	,	Driller:	Predra	g Vrhovac		
		Geologist:	Jim Mizwicki			
		LUST Incident No:	NA			
Water Depth While Drilling 9'	Water Depth After Drilling: NA	Project Number: 00	0868D	Page	1	

p		NIT.	חח
ľ		NE	LK
EN1	/IRONMI	ENTA	L, INC.

Site:

900 W. 18th Street Chicago, Illinois

Boring No.: B-48

Date Begin: 5/10/01

Date End:

	,			.,		ago, minois	Date Bita: 57 10/01
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	 	 		Concrete		Concrete	
6	60%		 	Fill		Crushed limestone FILL Loose, Moist	
4	75%		- 3 - - 6	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
14	100%					,	
			- 9 - 	sw		Black and tan well-sorted medium-grained SAND Dense, Wet	No visual, No odor
25	80%			CL		Brown and gray silty CLAY with trace fine-grained sand Firm, Moist	No visuai, No ocor
ā		:	12 			Boring terminated @ 12'	
	: ::::::::::::::::::::::::::::::::::::		- 15 -				
1901	, _			1 -			
			- 18 -				
Comple	tion Notes	! :		J		Drill Rig: SIMO	CO Earthprobe 200

Completion Notes: Hatch pattern denotes sample a	nalyzed.	Drill Rig: Driller:	g Vrhovac	:00	
	•	Geologist:	Jim M	izwicki	
		LUST Incident	No: NA		
Water Depth While Drilling9'	Water Depth After Drilling: NA	Project Number:	00868D	Page	1

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-			
ENV	IRONMI	ENTAL	., INC.

Boring No.: B-49

Site:

900 W. 18th Street Chicago, Illinois

Date Begin: 5/10/01

Date End:

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
6	75%			Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	,
13	75%		- 3 	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
29	100%		- 6 -	sc		Black clayey SAND grading to black sandy CLAY Firm, Moist	
			- 9 -	SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Brown well-sorted medium-grained SAND	(
15	100%			CL		Dense, Wet Brown and gray sandy CLAY with trace fine-grained sand Firm, Wet	No visual, No odor
			- 12 - 			Boring terminated @ 12'	
		(6)	15			8	
		-	 - 18				9 5 v
			1997/202	٠			

Completion Notes:	Drill Rig:	SIMC	O Earthprobe 2	200
Hatch pattern denotes sample analyzed.	Driller:	Predrag Vrhovac		
	Geologist:	izwicki		
	LUST Incident No	NA	4.0%	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Water Depth While Drilling: 8' Water Depth After Drilling: NA	Project Number: 0	0868D	Page	1

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Boring No.: B-50

Site:

900 W. 18th Street Chicago, Illinois

Date Begin: 5/10/01

Date End:

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	 			Concrete		Concrete	
7	100%			Fill		Crushed limestone FILL Loose, Moist	
7	100%		_ 3 _ _ 6 _	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
12	100%		 - 9 -				
12	100%			sw		Black and tan well-sorted medium-grained SAND Dense, Wet	No visual, No odor
			12 	CL		Brown and gray silty CLAY with trace fine-grained sand Firm, Moist Boring terminated @ 12'	
			 - 15 -				
F. (55)							×
			 18				

Completion Notes:	Drill Rig:	SIMCO	Earthprobe 2	00	
Hatch pattern denotes sample analyzed.	Driller:	Predrag Vrhovac			
	Geologist:	zwicki			
	LUST Incident No:	NA		····	
Water Depth While Drilling: 8' Water Depth After Drilling: NA	Project Number: 0	0868D	Page	1	7



Boring No.: B-51

Site:

Date Begin: 5/10/01

Date End:

5/10/01

900 W. 18th Street Chicago, Illinois

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
10	90%			Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	No visual, No odor
8	90%			Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visuai, No odor
11	100%		- 6 -	sc		Black clayey SAND grading to black sandy CLAY Firm, Moist	,
			_	SM	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brown well-sorted medium-grained SAND Dense, Wet	s .
9	100%		 	.CL		Brown and gray sandy CLAY with trace fine-grained sand Firm, Wet	No visual, No odor
			- 12 15 18			Boring terminated @ 12'	
				L		In n	

Completion Notes: Hatch patterns denote sample analyzed.	Drill Rig:		O Earthprobe 200		
	Geologist:		izwicki		
	LUST Incident	No: NA			
Water Depth While Drilling: 8' Water Depth After Drilli	ng: NA Project Number	r: 00868D	Page	1	

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ENV	IRONM	ENTAL	, INC.

Site:

900 W. 18th Street Chicago, Illinois

Boring No.: B-52

Date Begin: 5/11/01

Date End:

5/11/01

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
1	100%			Concrete Fill		Concrete Crushed limestone FILL Loose, Moist	N
12	100%	,	_ 3 _ 6	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
5	100%		- 9 - - 9 - 	SW		Black and tan well-sorted medium-grained SAND Dense, Wet Boring terminated @ 9'	No visual, No odor
	3		15	æ			
Comple	tion Notes		— 18 — —	(*)		Drill Rig: SIMCO	Earthprobe 200

Completion Notes:	Drill Rig:	SIMC	Earthprobe 200	
Hatch pattern denotes sample analyzed.	Driller: Predrag Vrhovac			
· ·	Geologist:	Jim M	izwicki	
	LUST Incident N	o: NA		
Water Depth While Drilling: NA Water Depth After Drilling: NA	Project Number:	00868D	Page	1



Water Depth While Drilling:8'

Boring Log

Site:

Boring No.: B-53

900 W. 18th Street Chicago, Illinois

Date Begin: 5/11/01

ENVIRONMENTAL, INC.		Chicago, Illinois				Date End: 5/11/01	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		Concrete	
<1	100%		_ 3 -	Fill		Crushed limestone FILL Loose, Moist	
10	100%		_ 6 -	Fill		Crushed limestone FILL black to medium-tan sand Loose, Moist	
30 _	100%		_ 9 -			Boring terminated @ 9'	No visual, No odor
,			_ _ _ 12 -			a a	,
			_				
			— 15 - _				
			18 - 				
Comple	etion Notes					Drill Rig:	SIMCO Earthprobe 200
Hatch	pattern den	iotes sam	ple analyze	ed.		Driller:	Predrag Vrhovac
						Geologist:	Jim Mizwicki
				7.3			

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

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ENV	IRONM	ENT	AL,	INC.

Boring No.: B-54

Site:

Date Begin: 5/11/01

5/11/01

900 W. 18th Street Chicago, Illinois

Date End:

		,							
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology		Description		Notes
	A 92500 0			Concrete		Соп	crete		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
5	100%			Fill		Crus	hed limestone FILL se, Moist		
11	100%	XXXX	3 			blac	hed limestone FILL a k to medium-tan sand se, Moist	nd	No visual, No odor
3 .	100%		— 6 — — -	Fill					No viewal No oden
			_ 9 -		1/1/1/2			2	No visual, No odor
	1				}	Bori	ng terminated @ 9'	1	
					18	·	v		Ti Ti
			— 12 –						
					3				
			1-					95. 15.	
			— 15 —				8	F F F	0.00
			-						it is
16 28			— 18 <i>—</i>]		1	ŧ
									4
Comple	tion Notes						Drill Rig:	SIMCO	Earthprobe 200
Hatch	pattern der	notes sam	ple analyze	d.			Driller:	Predrag \	9

Geologist:

Jim Mizwicki

LUST Incident No:

Water Depth While Drilling:8'

Water Depth After Drilling: NA

Project Number: 00868D

Page

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ENVI	RONME	NTAL	., INC.

Site:

900 W. 18th Street Chicago, Illinois Boring No.: B-55

Date Begin: 5/11/01

Date End:

5/11/01

	1						The same and a second state of the same state of
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
		XXXX		Concrete		Concrete	
<1	100%		_ 8 _	Fill		Crushed limestone FILL Loose, Moist	
<1	100%		- 3 			Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
13	100%		— 6 — 	Fill			No visual, No odor
			 - 12 -			Boring terminated @ 9'	
			— 18 — — -		,	· •	
C 1-		11		'	<u> </u>	Drill Rig SIMCO) Farthprobe 200

Completion Notes:	Drill Rig:	D Earthprobe 20	0	
Hatch pattern denotes sample analyzed.	Dritler:	Predrag Vrhovac		
	Geologist: Jim Mizwicki			
	LUST Incident N	o: NA		
Water Depth While Drilling:8' Water Depth After Drilling: NA	Project Number:	00868D	Page	1

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4		VEEK
ÊNV	IRONME	

Water Depth While Drilling:NA

Boring Log

Boring No.: B-56

Site:

Date Begin: 5/25/01

ENVIRONMENTAL, INC.			Site:	900 Chia	W. 18th Street	Date Begin: 5/25/01 Date End: 5/25/01	
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	ago, Illinois Description	Notes
	1			Concrete		Concrete	· · · · · · · · · · · · · · · · · · ·
Ĭ	100%			Fill		Crushed limestone FIL Loose, Moist	
<1	100%		- 3 <i>-</i> 			Crushed limestone FIL black to medium-tan sa Loose, Moist	
22	100%		- 6 - 9	- Fill			No visual, No odor
					·	Boring terminated @ 9	
	es S		12 				
			- 15 - 		н		5-
	,		- 18 -				
Comple	tion Notes				<u> </u>	Drill Rig:	SIMCO Earthprobe 200
Hatch	pattern den	otes samp	ile analyze	d.		Driller:	Predrag Vrhovac
						Geologist:	Jim Mizwicki

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

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Water Depth While Drilling:NA

Boring Log

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Boring No.: B-57

Site:

900 W. 18th Street Chicago, Illinois Date Begin: 5/25/01

Date End:

5/25/01

				·	CIIIC	ago, mmois	Date End: 3/23/01
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	 	 		Concrete		Concrete	
5	80%		_ :-	Fill		Crushed limestone FILL Loose, Moist	
7	100%		- 3 - - 6 -	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
. 4	100%		 			±	No visual, No odor
	1					Boring terminated @ 9'	
			- 12			,	
] [— 15 -				£
		} }				2:	
			<u>_</u>				* .
		e .	- 18 -				
			_				
Comple	etion Notes		<u> </u>	L	1	Drill Rig: SIMO	CO Earthprobe 200
Hatch	pattern der	otes sam	ple analyze	d.			rag Vrhovac

Hatch pattern denotes sample analyzed.

Driller: Predrag Vrhovac

Geologist: Jim Mizwicki

LUST Incident No: NA

Project Number: 00868D

Page

Water Depth After Drilling: NA

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Boring No.: B-58

Site:

900 W. 18th Street Chicago, Illinois

Date Begin: 5/25/01 Date End:

5/25/01

							
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	 			Concrete		Concrete	·
3	100%			Fill		Crushed limestone FILL Loose, Moist	
6	100%		- 3 - 	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
3	80%			SC		Black clayey SAND grading to black sandy CLAY Firm, Moist	
			-	CL		Brown sandy CLAY Soft, Moist	No visual, No odor
			- 12			Boring terminated @ 9'	
				<u> </u>			

Completion Notes:	Drill Rig:	SIMCO	D Earthprobe 2	00
Hatch pattern denotes sample analyzed.	Driller:	Predra	g Vrhovac	
	Geologist:	Jim Mi	izwicki	
	LUST Incident	No: NA		
Water Depth While Drilling:NA Water Depth After Drilling: NA	Project Number:	00868D	Page	1

Site:

900 W. 18th Street Chicago, Illinois

Boring No.: B-59

Date Begin: 5/25/01 Date End:

5/25/01

2000 10							
FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
	1 37	5-4 8	-	Concrete	导位导位等位	Concrete	
3	50%			Fill		Crushed limestone FILL Loose, Moist	
17	100%		- 3 - 	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	- No visual, No odor
7	0004		6 - 	SC		Black clayey SAND grading to black sandy CLAY Firm, Moist	
7	80%		_	CL		Brown sandy CLAY Soft, Moist	No visual, No odor
	(*)			_		Boring terminated @ 9'	κ.
			- 12 -	(10)			
	2					•	
			15	-		¥ .	
N.				7-			s
		t	— 18 <i>-</i>				
		ń					

Completion Notes:	Drill Rig:	SIMCO Earthprobe 200		
Hatch pattern denotes sample analyzed.	Driller:	Predra	g Vrhovac	
	Geologist:	Jim M	izwicki	
	LUST Incident N	lo: NA	S	
Water Depth While Drilling:NA Water Depth After Drilling: NA	Project Number:	00868D	Page	1



Site:

900 W. 18th Street Chicago, Illinois

Boring No.: B-60

Date Begin: 06/05/01

Date End:

06/05/01

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
_				Concrete	Z%Z%Z%	Concrete Crushed limestone FILL	
2	75%			Fill		Loose, Moist	
5	100%		- 3 - 	Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
27	100%		- 6 - 	SC		Black clayey SAND grading to black sandy CLAY Firm, Moist	
21	100%		- -	CL		Brown sandy CLAY Soft, Moist	No visual, No odor
			- 12			Boring terminated @ 9'	V
	tion Notes					Drill Rig: SIMCO	Earthprobe 200

Completion Notes: Drill Kig: SIMCO Earthprobe 200 Hatch pattern denotes sample analyzed. Driller: . Predrag Vrhovac Geologist: Jim Mizwicki LUST Incident No: NA Water Depth While Drilling:NA Water Depth After Drilling: NA Page Project Number: 00868D 1

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Boring No.: B-61

Site:

Date Begin: 06/05/01

900 W. 18th Street Chicago, Illinois

Date End: 06/05/01

FID (ppm)	Sample Recovery	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
				Concrete		Concrete	
. 3	75%			Fill		Crushed limestone FILL Loose, Moist	
6	100%			Fill		Crushed limestone FILL and black to medium-tan sand Loose, Moist	No visual, No odor
27	1000/		- 6 - 	SC		Black clayey SAND grading to black sandy CLAY Firm, Moist	
37	100%		 - 9 -	CL		Brown sandy CLAY Soft, Moist	No visual, No odor
14						Boring terminated @ 9'	
			_				x .
			12				
		_					
			 - 15 -				
			- F				×
			— 18 —				
							20700.0 5450
	tion Notes	700000			965.	Drill Rig: SIMCO	Earthprobe 200

Completion Notes:	Dilli Kig.	SINC	O Earmprobe 20	30
Hatch pattern denotes sample analyzed.	Driller:	Predra	g Vrhovac	
	Geologist:	Jim M	izwicki	
	LUST Incident 1	No: NA		
Water Depth While Drilling:NA Water Depth After Drilling: NA	Project Number:	: 00868D	Page	1

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LI		[N]	نان	II
ENV	/IRONM	ENT	AL, II	NC.

Water Depth While Drilling:NA

Boring Log

Boring No.: B-62

Site:

Date Begin: 06/05/2001

900 West 18th Street Chicago, Illinois

Date End: 06/05/2001

					Cni	cago, n	linois		Date End:	06/05/200
FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology		Description		Not	es
***				Concrete		Con	crete			
3	50%			Fill		Crus Loo	shed limestone FII se, Moist		No C)dor
1	100%		- 3 -	SM	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brov Loos	wn silty SAND se, Moist			ě
			- 6 -			Brov Soft	wn clayey SILT , Moist			
4	100%			OL					No V	sual
			– 9 –			Bori	ng terminated at 9	feet	}	
		-								
÷*	9 3 a	.87	- 12 -			2	8	,		1501
			.		,				9	
Comple	tion Notes						Drill Rig:	SIMCO	EarthProbe 20	0
Hatche	ed pattern o	ienotes sai	mple analy	zed.			Driller:	Predrag	Vhrovac	
				*			Geologist:	J. Mizw	icki	· · · · · · · ·

Water Depth After Drilling: NA

LUST Incident No: NA

Project Number: 00868D

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Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-63

Date Begin: 06/05/2001

					Chic	ago, Illinois	Date End: 06/05/200
FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology	Description	Notes
	(x)			Concrete		Concrete	
1	75%	:		Fill		Crushed limestone FILL Loose, Moist	No Odor
1	100%		_ 3 -	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brown silty SAND Loose, Moist	
		XXXX	— 6 -			Brown clayey SILT Soft, Moist	
4	100%			OL		×	No Visual
			— 9 <i>-</i>		 	Boring terminated at 9 feet	
e							
			- 12 -				
			<u>-</u>	-			7 m
	ayo		<u>.</u>	=		,	
				<u></u>	L		
Comple	tion Notes	:	imple analy			Drill Rig:	SIMCO EarthProbe 200

Driller: Predrag Vhrovac Geologist: J. Mizwicki LUST Incident No: NA Water Depth While Drilling:NA Water Depth After Drilling: NA Project Number: 00868D Page

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14		V	HH	K
700000000000000000000000000000000000000	IRONM			

Site:

Boring No.: B-64

900 West 18th Street Chicago, Illinois

Date Begin: 06/05/2001

Date End:

06/05/2001

FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology	Description	Notes
1	50%	_		Concrete		Concrete Crushed limestone FILL Loose, Moist	No Odor
3	70%		3	SM		Brown silty SAND Loose, Moist	
2917	100%	CXXXX	- 6 - 	OL		Brown clayey SILT Soft, Moist	No Visual
		_	- 9 - 			Boring terminated at 9 feet	
		,	— 12 — - —			ž	

Completion Notes:	Drill Rig:	SIMCO	EarthProbe 20	0
Hatched pattern denotes sample analyzed.	Driller:	Predrag	g Vhrovac	
	Geologist:	J. Mizv	vicki	• /
9	LUST Incident N	lo: NA		
Water Depth While Drilling:NA Water Depth After Drilling: NA	Project Number:	00868D	Page	1

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	1		N		11

Boring No.: B-65

Site:

900 West 18th Street Chicago, Illinois

Date Begin: 06/05/2001

Date End:

06/05/2001

			<u> L</u>			icago, minois	Date Elia. 00/03/200
FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology	Description	Notes
		-	1.4 1	Concrete	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Concrete	
					1.7.7.7.	Crushed limestone FILL	
1	50%			€ -	1.7.7.7.7.7.7	Loose, Moist	No odor
	3076	ļļ		Fill	1. 1. 1. 1. 1. 1. 1		No odot
	S in					7	No Visual
	5		- 3 -			Brown silty SAND with some	_
					9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	gravel	
2			_		9 9 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6 9 6	Loose, Moist	
5	70%			SM	9 9 9 9 9 9 9		
			- N 1 -	1	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		
			— 6 —		2 9 9 0 9 0	Brown clayey SILT	
						Soft, Moist	
				1			
1237	100%			OL		2	Strong Petroleum odor
	1]		*	
			 9			Boring terminated at 9 feet	
						bonng terminated at 3 feet	
			=			2	
	3	18		85 85		÷	
		ā .	— 12 —				
	5		746				•
			_				
						·	
	2 3					T T	
Comple	tion Notes	:				Drill Rig: SIMC	O EarthProbe 200
Hatche	d pattern o	denotes sa	mple analy	zed.		Driller: Predra	g Vhrovac

Completion Notes:		Drill Kig.	SIMC	SIMCO Earth Frode 200		
Hatched pattern denotes sample and	sample analyzed.	Driller:	Predra	g Vhrovac		
	e c	Geologist:	J. Miz	wicki		
		LUST Incident N	io: NA	2012 U		
Water Depth While Drilling:NA	Water Depth After Drilling: NA	Project Number:	00868D	Page	1	

D	Ø	M	CI	ER	ı
11				INC /I'	7

Boring Log Boring No.: B-66

Site:

900 West 18th Street Chicago, Illinois Date Begin: 06/05/2001

Date End:

06/05/2001

FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology	Description	Notes
4	75%			Concrete		Concrete Crushed limestone FILL Loose, Moist	No odor
20	100%		- 3 - - 6 -	SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Brown silty SAND with some gravel Loose, Moist Brown clayey SILT Soft, Moist	No Visual
5554	100%		 - 9 - 	OL		Boring terminated at 9 feet	Strong petroleum odor
Company			- 12 -		·	Drill Rig SIMCO	FarthProbe 200

Completion Notes:
Hatched pattern denotes sample analyzed.

Drill Rig: SIMCO EarthProbe 200

Driller: Predrag Vhrovac

Geologist: J. Mizwicki

LUST Incident No: NA

Water Depth While Drilling:NA Water Depth After Drilling: NA

Project Number: 00868D Page 1

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Site:

900 West 18th Street Chicago, Illinois

Boring No.: B-67

Date Begin: 06/05/2001

EIV	ENVINORMENTAL, INC.			900 West 18th Street Chicago, Illinois			Date End: 06/05/2001
FID (ppm)	Sample Recovery	Sample	Depth	Soil Class	Lithology	Description	Notes
				Concrete		Concrete	
1	75%			Fill		Crushed limestone FILL Loose, Moist	No odor
5. 22			- 3 -		9 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Brown silty SAND with some gravel Loose, Moist	
4	100%			SM	9: 9: 9: 0 9: 0 9: 0 9: 0 9: 0 9: 0 9:	स् सः ए	No Visual
		*×××	- 6 -		13912711391231139123	Boring terminated at 6 feet	
			<u> </u>	_			
							İ
			-				
			- 12 -	<u>:</u>		3	
						as a	~
) i		19	

Completion Notes:	Drill Rig:	SIMC	SIMCO EarthProbe 200		
Hatched pattern denotes sample analyzed.	Driller: Predrag Vhrovac		g Vhrovac	****	
	Geologist:	J. Miz	wicki		
	LUST Incident	No: NA			
Water Depth While Drilling:NA Water Depth After Drilling: NA	Project Number	: 00868D	Page	1	



Groundwater Monitoring Well Completion Report

Site:

Groundwater Monitoring Well ID:

MW-1

Page 1 of 1

Notes: Well constructed using 2" Schedule 80 PVC casing and 2" .010" slot PVC riser.

900 West 18th Street III:--:-

1000 North Halsted Chicago, Illinois 60622	Chicago,	Chicago, Illinois					
Project Number: 00868D	Top of Inner Casing:			Casing:	99.69		
Geologist: C. Simpson	Ground elevation:			ation:	NA		
Date Drilled: 03/09/2001		Total I	Total Deph of Borehole 15'				
Borehole Diameter: 8.25"		Depth to Water: 5'					
Soil Description	Soil Class	Graphic Log	FID	Depth	Well Completion Detail	Annulus Material	
Concrete	Concrete	8 8				Flush mount well cove	
Crushed limestone FILL Loose, Moist	Fill		4			with concrete vault Medium bentonite	
Gray medium-grained sandy CLAY Soft, Moist	CL			- -			
Brown medium-coarse silty SAND Loose, Wet	SM	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	17				
Gray medium-grained sandy CLAY Soft, Wet Boring terminated at 15'	CL		7	10- - 15-		#5 Quartz sand	
						¥	
5 TON ACC. 10 TO SAME					190		



Groundwater Monitoring Well Completion Report

Site:

Groundwater Monitoring Well ID:

900 West 18th Street Chicago, Illinois

MW-2

					127912	_	
Project Number: 00868D		Top of Inner Casing: 101.13					
Geologist: C. Simpson	1. ti on 3	Ground elevation: NA					
Date Drilled: 03/09/2001		Total Deph of Borehole 15'					
Borehole Diameter: 8.25"		Depth 1	to Wa	ter:	6'		<u> </u>
Soil Description	Soil Class	Graphic Log	FID	Depth	Well Complet Deta	ion	Annulus Materia
Concrete	Concrete	0 0		_0 %d%ds	7: 실기 중: 실기		Flush mount well cove
Crushed limestone FILL Loose, Moist	Fill		<1	 			with concrete vault Medium bentonite
Gray medium-grained sandy CLAY	-			 5			*
Soft, Moist	CL						
Brown medium-coarse silty SAND Loose, Wet	SM	9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1				5
Gray medium-grained sandy CLAY Soft, Wet	CL		<1	10 			#5 Quartz sand
Boring terminated at 15'			100	15 			



Groundwater Monitoring Well Completion Report

Site:

Notes: Well constructed using 2" Schedule 80 PVC casing and 2" .010" slot PVC riser.

900 West 18th Street Chicago, Illinois Groundwater Monitoring Well ID:

MW-3

Page 1 of 1

1000 North Haisted Cincago, Intuois 00022	Cincago	, minois				
Project Number: 00868D		Top of Inner Casing: 99.7				
Geologist: C. Simpson		Ground	eleva	ation:	NA	,
Date Drilled: 03/09/2001		Total Deph of Borehole 15'				
Borehole Diameter: 8.25"		Depth	to Wa	ter:	5'	
Soil Description	Soil Class	Graphic Log	FID	Depth	Well Completion Detail	Annulus Material
Concrete	Concrete					Flush mount well cover
Crushed limestone FILL		1.7.7.		_		with concrete vault
Loose, Moist	Fill		<1	 		Medium bentonite
	76-76-76-76-76	2/2/2		- 5-		
Gray medium-grained sandy CLAY	CL			_		
Soft, Moist Brown medium-coarse silty SAND		9 9 9				
Loose, Wet	SM	0 P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<l< td=""><td></td><td></td><td></td></l<>			
Gray medium-grained sandy CLAY Soft, Wet	CL	3.83	<1	- 10 		#5 Quartz sand
Boring terminated at 15'				 		4 %



Groundwater Monitoring Well Completion Report

Site:

Groundwater Monitoring Well ID:

900 West 18th Street

MW-4 Chicago, Illinois

Project Number: 00868D			Top of Inner Casing: 98.5					
Geologist: C. Simpson			Ground elevation: NA					
Date Drilled: 03/09/2001		Total I	Total Deph of Borehole 15'					
Borehole Diameter: 8.25"		Depth	Depth to Water: 3'					
Soil Description	Soil Class	Graphic Log	FID	Depth	Well Completion Detail	Annulus Material		
Concrete	Concrete		-			Flush mount well cover		
Crushed limestone FILL Loose, Moist		10/0/0		L J		with concrete vault		
Louse, Moist			<1	_		Medium bentonite		
	Fill			_ 5 _				
**************************************			3.2	 				
Gray medium-grained sandy CLAY Soft, Wet	ST			 - 10-		#5 Quartz sand		
	CL		17					
				 15				
Boring terminated at 15'				_	il a			
-				<u> </u>				
		1		<u> </u>				

Notes: Well constructed using 2" Schedule 80 PVC casing and 2" .010" slot PVC riser.

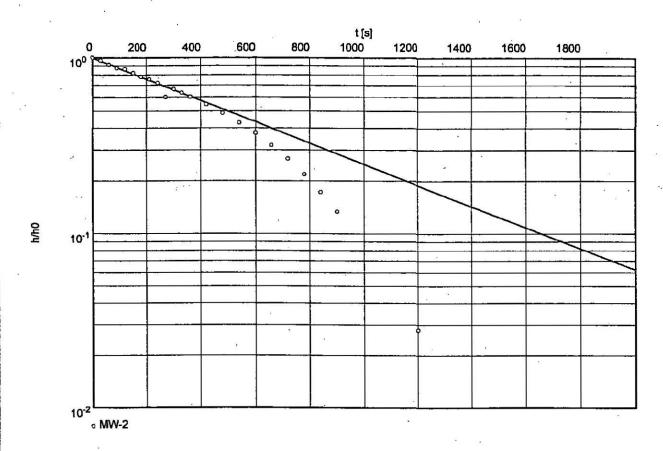
Page 1 of 1

printed 06/06/2013 8:21AM by Sharon.Dowson p. 153/155

APPENDIX F:

SLUG TEST DATA

Pioneer Environmental, Inc. 1000 N. Halsted Chicago, Illinois	slug/bail test analysis BOUWER-RICE's m		Project: 900 W. 18th Street				
(312) 587-1021	,		Evaluated by: C. Simpson				
Siug Test No. Bail Down	Test conducted on: 3-15-01						
MVV-2	•	The second secon					
		L			2		



Hydraulic conductivity [cm/s]: 3.75×10^{-5}

Pione	Pioneer Environmental, Inc. slug/bail test analysis				Page 2	
1000 N. Halsted BOUWER-RICE's me		thod	W. 18th Street			
(312) 587-1021		Evaluated by: C. Simpson				
Slug T	est No. Bail Down		Test conducted on:			
MW-2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		MW-2	ur yra vensy		
1010 0-2			1414 A-7			
Static	water level: 193.5 cm below datum	0.		200	*	
	Pumping test duration	Water level	Drawdo	own		
	F-1	/ami		,	İ	
1	[s] 0	[cm] 433.4	[cm]	239.9		
2	30	425.2		231.6		
. 3	60	413.0		219.5		
5	90	403.6		210.0		
6	120 150	400.8 390.4		207.3 196.9		
7	180	381.3		187.8		
8	210	375.2		181.7		
9	240	366.7		173.1		
10 11	270 300	337.7 353.3		144.2 159.7		
12	330	345.9		152.4		
13	360	338.0		144.5		
14		324.3		130.8		
15	480 540	310.3 296.6		116.7 103.0		
17	600	283.5		89.9		
18	660	270.4		76.8		
19	720	257.9		64.3		
20	780	246.0		52.4		
21	840 900	235.0 225.6		41.5 32.0		
23	1200	200.3		6.7		
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